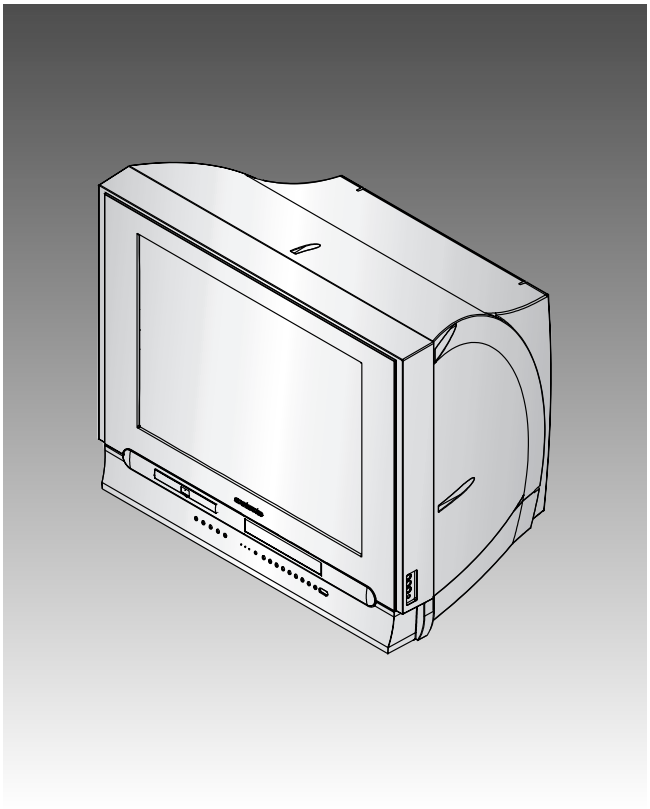
SAMSUNG

DVD Television

Chassis : **V18B**
Model: **CXM2785TPX/XAA**

SERVICE Manual

DVD Television Cassette Recorder



CONTENTS

1. Precautions
2. Specifications
3. Disassembly and Reassembly
4. Alignment and Adjustment (Electrical)
5. Troubleshooting
6. Exploded View and Parts List
7. Electric Parts List
8. Block Diagram
9. Schematic Diagrams

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1. Precautions

Follow these safety, servicing and ESD precautions to prevent damage and protect against potential hazards such as electrical shock and X-rays.

1-1 Safety Precautions

1. Be sure that all of the built-in protective devices are replaced. Restore any missing protective shields.

2. When reinstalling the chassis and its assemblies, be sure to restore all protective devices, including: nonmetallic control knobs and compartment covers.

3. Make sure that there are no cabinet openings through which people—particularly children—might insert fingers and contact dangerous voltages. Such openings include the spacing between the picture tube and the cabinet mask, excessively wide cabinet ventilation slots, and improperly fitted back covers.

   If the measured resistance is less than 1.0 megohm or greater than 5.2 megohms, an abnormality exists that must be corrected before the unit is returned to the customer.

4. Leakage Current Hot Check (Figure 1-1):
   Warning: Do not use an isolation transformer during this test. Use a leakage-current tester or a metering system that complies with American National Standards Institute (ANIS C101.1, Leakage Current for Appliances), and Underwriters Laboratories (UL Publication UL1410, 59.7).

5. With the unit completely reassembled, plug the AC line cord directly into the power outlet. With the unit's AC switch first in the ON position and then OFF, measure the current between a known earth ground (metal water pipe, conduit, etc.) and all exposed metal parts, including: antennas, handle brackets, metal cabinets, screwheads and control shafts. The current measured should not exceed 0.5 milliamp. Reverse the power-plug prongs in the AC outlet and repeat the test.

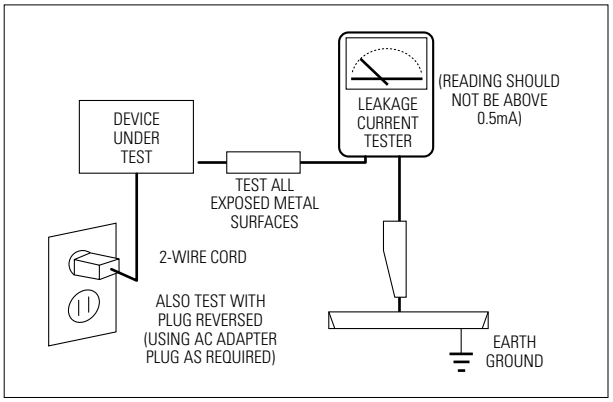
DEVICE UNDER TEST
LEAKAGE CURRENT TESTER
(READING SHOULD NOT BE ABOVE 0.5mA)
TEST ALL EXPOSED METAL SURFACES
2-WIRE CORD
ALSO TEST WITH PLUG REVERSED (USING AC ADAPTER PLUG AS REQUIRED)
EARTH GROUND

Fig. 1-1 AC Leakage Test

6. Antenna Cold Check:
   With the unit's AC plug disconnected from the AC source, connect an electrical jumper across the two AC prongs. Connect one lead of the ohmmeter to an AC prong. Connect the other lead to the coaxial connector.

7. X-ray Limits:
   The picture tube is especially designed to prohibit X-ray emissions. To ensure continued X-ray protection, replace the picture tube only with one that is the same type as the original. Carefully reinstall the picture tube shields and mounting hardware; these also provide X-ray protection.

8. High Voltage Limits:
   High voltage must be measured each time servicing is done on the B+, horizontal deflection or high voltage circuits. Correct operation of the X-ray protection circuits must be reconfirmed whenever they are serviced. (X-ray protection circuits also may be called "horizontal disable" or "hold-down".)

   Heed the high voltage limits. These include the X–ray Protection Specifications Label, and the Product Safety and X-ray Warning Note on the service data schematic.

1-1 Safety Precautions (Continued)

9. High voltage is maintained within specified limits by close-tolerance, safety-related components and adjustments. If the high voltage exceeds the specified limits, check each of the special components.

10. Design Alteration Warning:
    Never alter or add to the mechanical or electrical design of this unit. Example: Do not add auxiliary audio or video connectors. Such alterations might create a safety hazard. Also, any design changes or additions will void the manufacturer's warranty.

11. Hot Chassis Warning:
    Some TV receiver chassis are electrically connected directly to one conductor of the AC power cord. If an isolation transformer is not used, these units may be safely serviced only if the AC power plug is inserted so that the chassis is connected to the ground side of the AC source.

    To confirm that the AC power plug is inserted correctly, do the following: Using an AC voltmeter, measure the voltage between the chassis and a known earth ground. If the reading is greater than 1.0V, remove the AC power plug, reverse its polarity and reinsert. Re-measure the voltage between the chassis and ground.

12. Some TV chassis are designed to operate with 85 volts AC between chassis and ground, regardless of the AC plug polarity. These units can be safely serviced only if an isolation transformer inserted between the receiver and the power source.

13. Some TV chassis have a secondary ground system in addition to the main chassis ground. This secondary ground system is not isolated from the AC power line. The two ground systems are electrically separated by insulating material that must not be defeated or altered.

14. Components, parts and wiring that appear to have overheated or that are otherwise damaged should be replaced with parts that meet the original specifications. Always determine the cause of damage or overheating, and correct any potential hazards.

15. Observe the original lead dress, especially near the following areas: Antenna wiring, sharp edges, and especially the AC and high voltage power supplies. Always inspect for pinched, out-of-place, or frayed wiring. Do not change the spacing between components and the printed circuit board. Check the AC power cord for damage. Make sure that leads and components do not touch thermally hot parts.

16. Picture Tube Implosion Warning:
    The picture tube in this receiver employs "integral implosion" protection. To ensure continued implosion protection, make sure that the replacement picture tube is the same as the original.

17. Do not remove, install or handle the picture tube without first putting on shatterproof goggles equipped with side shields. Never handle the picture tube by its neck. Some "in-line" picture tubes are equipped with a permanently attached deflection yoke; do not try to remove such "permanently attached" yokes from the picture tube.

18. Product Safety Notice:
    Some electrical and mechanical parts have special safety-related characteristics which might not be obvious from visual inspection. These safety features and the protection they give might be lost if the replacement component differs from the original—even if the replacement is rated for higher voltage, wattage, etc.

    Components that are critical for safety are indicated in the circuit diagram by shading, (⚠) or (⚠).
    Use replacement components that have the same ratings, especially for flame resistance and dielectric strength specifications.
    A replacement part that does not have the same safety characteristics as the original might create shock, fire or other hazards.

1-2 Servicing Precautions

Warning1: First read the "Safety Precautions" section of this manual. If some unforeseen circumstance creates a conflict between the servicing and safety precautions, always follow the safety precautions.
Warning2: An electrolytic capacitor installed with the wrong polarity might explode.

1. Servicing precautions are printed on the cabinet. Follow them.

2. Always unplug the unit's AC power cord from the AC power source before attempting to: (a) Remove or reinstall any component or assembly, (b) Disconnect an electrical plug or connector, (c) Connect a test component in parallel with an electrolytic capacitor.

3. Some components are raised above the printed circuit board for safety. An insulation tube or tape is sometimes used. The internal wiring is sometimes clamped to prevent contact with thermally hot components. Reinstall all such elements to their original position.

4. After servicing, always check that the screws, components and wiring have been correctly reinstalled. Make sure that the portion around the serviced part has not been damaged.

5. Check the insulation between the blades of the AC plug and accessible conductive parts (examples: metal panels, input terminals and earphone jacks).

6. Insulation Checking Procedure: Disconnect the power cord from the AC source and turn the power switch ON. Connect an insulation resistance meter (500V) to the blades of the AC plug.

   The insulation resistance between each blade of the AC plug and accessible conductive parts (see above) should be greater than 1 megohm.

7. Never defeat any of the B+ voltage interlocks. Do not apply AC power to the unit (or any of its assemblies) unless all solid-state heat sinks are correctly installed.

8. Always connect a test instrument's ground lead to the instrument chassis ground before connecting the positive lead; always remove the instrument's ground lead last.

1-3 Precautions for Electrostatically Sensitive Devices (ESDs)

1. Some semiconductor ("solid state") devices are easily damaged by static electricity. Such components are called Electrostatically Sensitive Devices (ESDs); examples include integrated circuits and some field-effect transistors. The following techniques will reduce the occurrence of component damage caused by static electricity.

2. Immediately before handling any semicon ductor components or assemblies, drain the electrostatic charge from your body by touching a known earth ground. Alternatively, wear a discharging wrist-strap device. (Be sure to remove it prior to applying power—this is an electric shock precaution.)

3. After removing an ESD-equipped assembly, place it on a conductive surface such as aluminum foil to prevent accumulation of electrostatic charge.

4. Do not use freon-propelled chemicals. These can generate electrical charges that damage ESDs.

5. Use only a grounded-tip soldering iron when soldering or unsoldering ESDs.

6. Use only an anti-static solder removal device. Many solder removal devices are not rated as "anti-static"; these can accumulate sufficient electrical charge to damage ESDs.

7. Do not remove a replacement ESD from its protective package until you are ready to install it. Most replacement ESDs are packaged with leads that are electrically shorted together by conductive foam, aluminum foil or other conductive materials.

8. Immediately before removing the protective material from the leads of a replacement ESD, touch the protective material to the chassis or circuit assembly into which the device will be installed.

9. Minimize body motions when handling unpackaged replacement ESDs. Motions such as brushing clothes together, or lifting a foot from a carpeted floor can generate enough static electricity to damage an ESD.

CAUTION

These servicing instructions are for use by qualified service personnel only.
To reduce the risk of electric shock do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so.

1-4 Handling the optical pick-up

The laser diode in the optical pick up may suffer electrostatic breakdown because of potential static electricity from clothing and your body.

The following method is recommended.

(1) Place a conductive sheet on the work bench (The black sheet used for wrapping repair parts.)

(2) Place the set on the conductive sheet so that the chassis is grounded to the sheet.

(3) Place your hands on the conductive sheet(This gives them the same ground as the sheet.)

(4) Remove the optical pick up block

(5) Perform work on top of the conductive sheet. Be careful not to let your clothes or any other static sources to touch the unit.

Be sure to put on a wrist strap grounded to the sheet.
Be sure to lay a conductive sheet made of copper etc.
Which is grounded to the table.

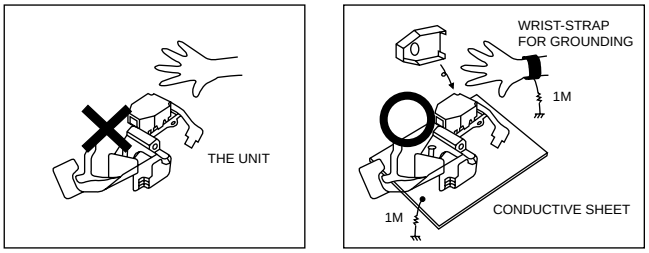

Fig.1-2

(6) Short the short terminal on the PCB, which is inside the Pick-Up ASS'Y, before replacing the Pick-Up. (The short terminal is shorted when the Pick-Up Ass'y is being lifted or moved.)

(7) After replacing the Pick-up, open the short terminal on the PCB.

1-5 Pick-up disassembly and reassembly

1-5-1 Disassembly

1) Remove the power code.
2) Disassemble the Deck-Assy.
3) Make solder land 2 points short on Pich-up.
   (See Fig. 1-3)
4) Disassembly the Pick-up.

1-5-2 Assembly

1) Replace the Pick-up.
2) Remove the soldering 2 points on Pick-up.
3) Reassemble the Deck-Assy.

Note : If the assembly and disassembly are not done in correct sequence, the Pick-up may be damaged.

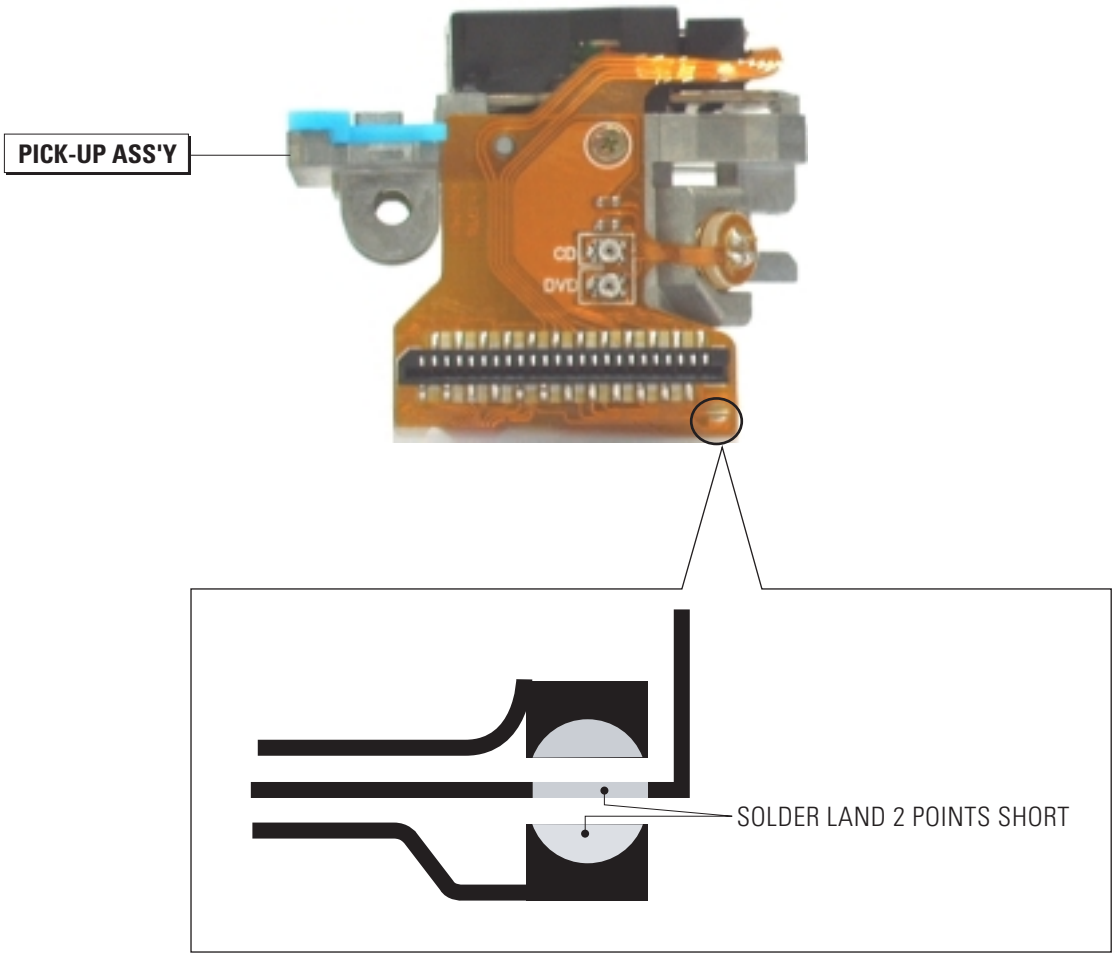

Fig. 1-3

2. Specifications

Model		CXM2785TP
Power Consumption		Specified on the rear side of TV (150W)
Screen Size		Specified on the rear side of TV (51Cm)
Dimmension(mm)		584 (W) x 492 (D) x 515 (H)
Weight		28.5 Kg
Tube		High Contrast Instant Receiving System
Tuning Range		VHF 2 ~ 13, Receiving System: NTSC-M
		UHF 14 ~ 69, CATV: CH1 ~ CH125
Antenna Input		VHF, UHF: 75Ω Unbalanced
Power Supply		110V, 60㎐
		Remote Control: DC 1.5V (two AA-size batteries)
Rectification Type		Insulation Switch Type
Sound Output		5W+5W
Adjustments		Remocon Adjustment: Infrared rays system
		UHF/VHF Electronic Tuner Fine Tuning: Electronic
		Electronic Function Adjustment
Allowable Operating Temperature		+5℃ ~ +35℃
Allowable Operating Humidity		10% ~ 75%
Disc	DVD (Digital Versatile Disc)	Linear Velocity: 3.49m/sec
		Maximum Playback Time: 135 minutes (Based on a single-sided and a single layer recording disc)
	CD: 12㎝ (Compact Disc)	Linear Velocity: 1.2 ~ 1.4m/sec
		Maximum Playback Time: 74 minutes
	CD: 8㎝ (Compact Disc)	Linear Velocity: 1.2 ~ 1.4m/sec
		Maximum Playback Time: 20 minutes
	Video-CD: 12㎝	Linear Velocity: 1.2 ~ 1.4m/sec
		Maximum Playback Time: 74 minutes (Video + Audio)
Recording System		Rotary,azimuth four-head helical scanning system Luminance : FM azimuth recording Color signal : converted subcarrier phase shift recording
Audio Track		1 track
Tape Width		12.7 mm (1/2 inch)
Record Speed SP SLP		 33.35 mm/s (1.31 in./s) 11.12 mm/s (0.43 in./s)
Record/Playback Time		480 min. with -160 used in SLP mode
FF/Rew Time		Less than 100 sec. with T-120
Heads		Video : 4 rotary heads Audio/Control : 1 stationary head, 2 rotary heads Erase : 1 full track erase 1 audio track erase

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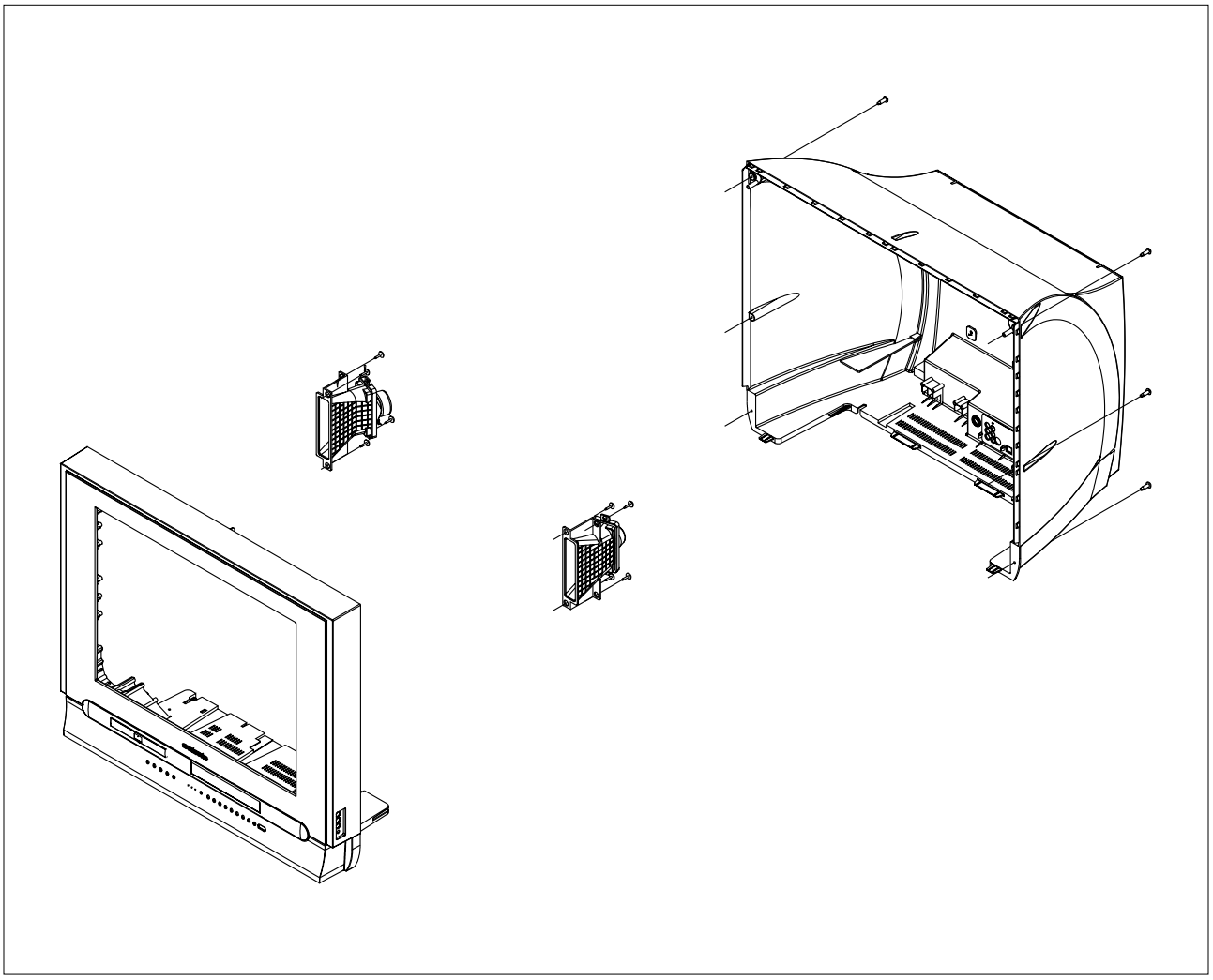
3. Disassembly and Reassembly

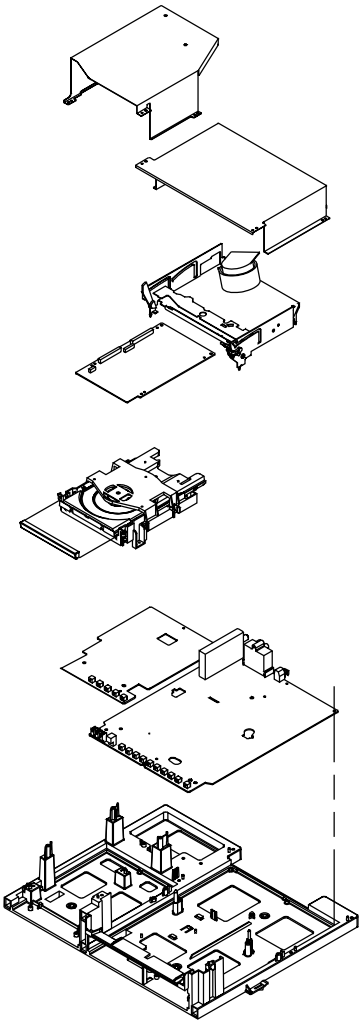
3-1 Disassembly

3-1-1 Back Cover Removal



1. Remove the screws located on the side of the back cover.

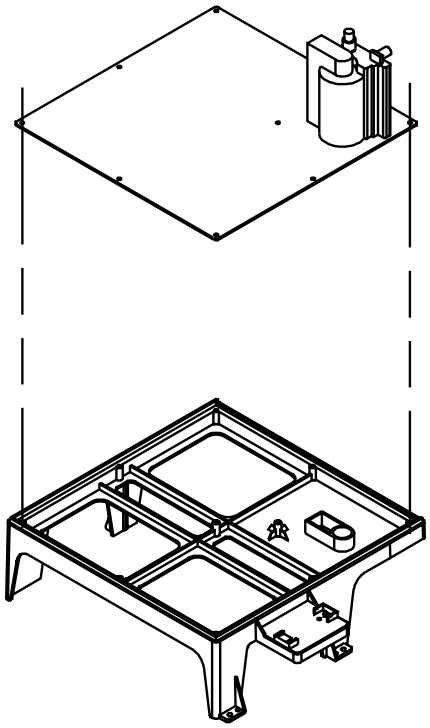
3-1-2 Main Assembly Removal



1. Release four connectors between DVD Interface and Main PCB Assembly.
2. Remove screws from the DVD and VCR shield case.
3. Remove shield case, then take out DVD PCB Assembly.
4. Remove screws from the DVD and VCR Deck.
5. Life up the DVD and VCR Deck, then Remove screws from Main and DVD Interface PCB Assembly.
6. Remove the Main and DVD Interface PCB Assembly.

❉ On reassembling SET : When Holder-Deck is inserted to Front-Cabinet. Lift up VCR Holder-Tray at all times. Otherwise Open/Close Function is not operated.

3-1-3 Power Assembly Removal



1. Release two connectors between Power and Main PCB Assembly.
2. Remove screws from the Power Assembly.

3-2 VCR Deck Parts Locations

3-2-1 Top View

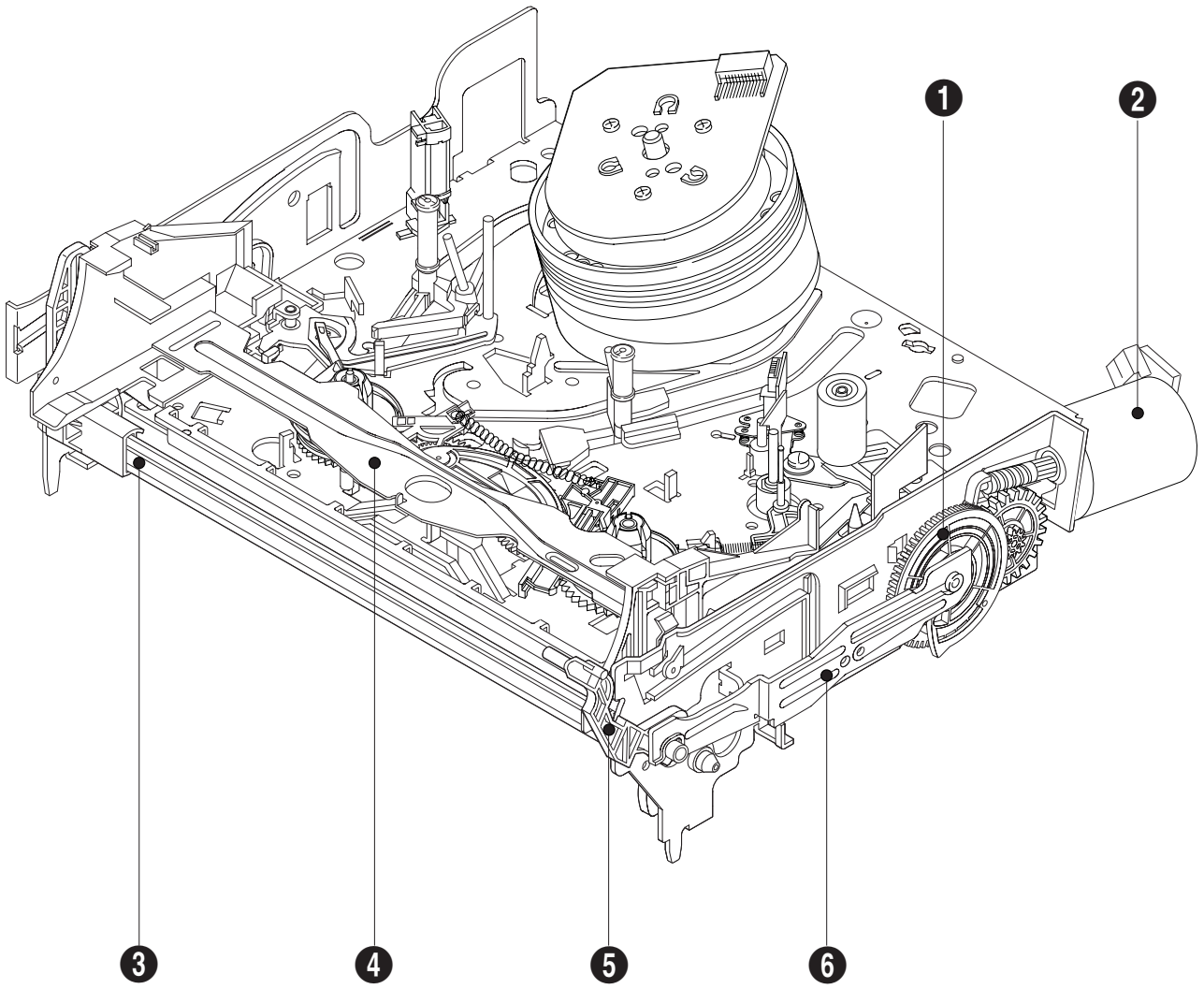


Fig. 3-1 Top parts Location-1

1. GEAR FL CAM
2. MOTOR LOADING ASS'Y
3. LEVER FL ARM ASS'Y
4. HOLDER FL CASSETTE ASS'Y
5. LEVER FL DOOR
6. SLIDER FL DRIVE

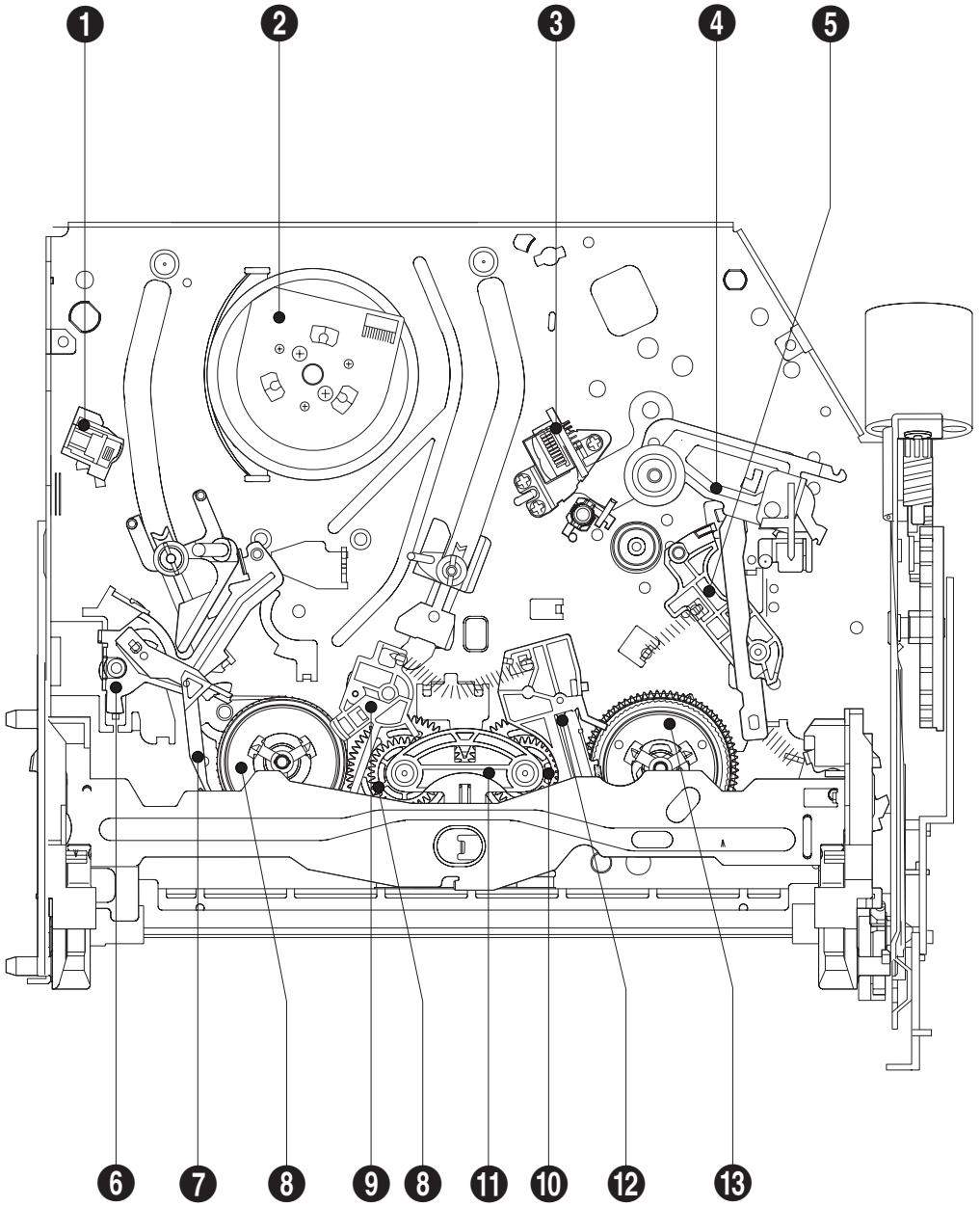


Fig. 3-2 Top Parts Location-2

1. FE HEAD
2. CYLINDER ASS'Y
3. ACE HEAD ASS'Y
4. LEVER UNIT PINCH ASS'Y
5. LEVER #9 GUIDE ASS'Y
6. LEVER TENSION ASS'Y
7. BAND BRAKE ASS'Y
8. DISK S REEL
9. LEVER S BRAKE ASS'Y
10. GEAR IDLE
11. LEVER IDLE
12. LEVER T BRAKE ASS'Y
13. DISK T REEL

3-2-2Bottom View

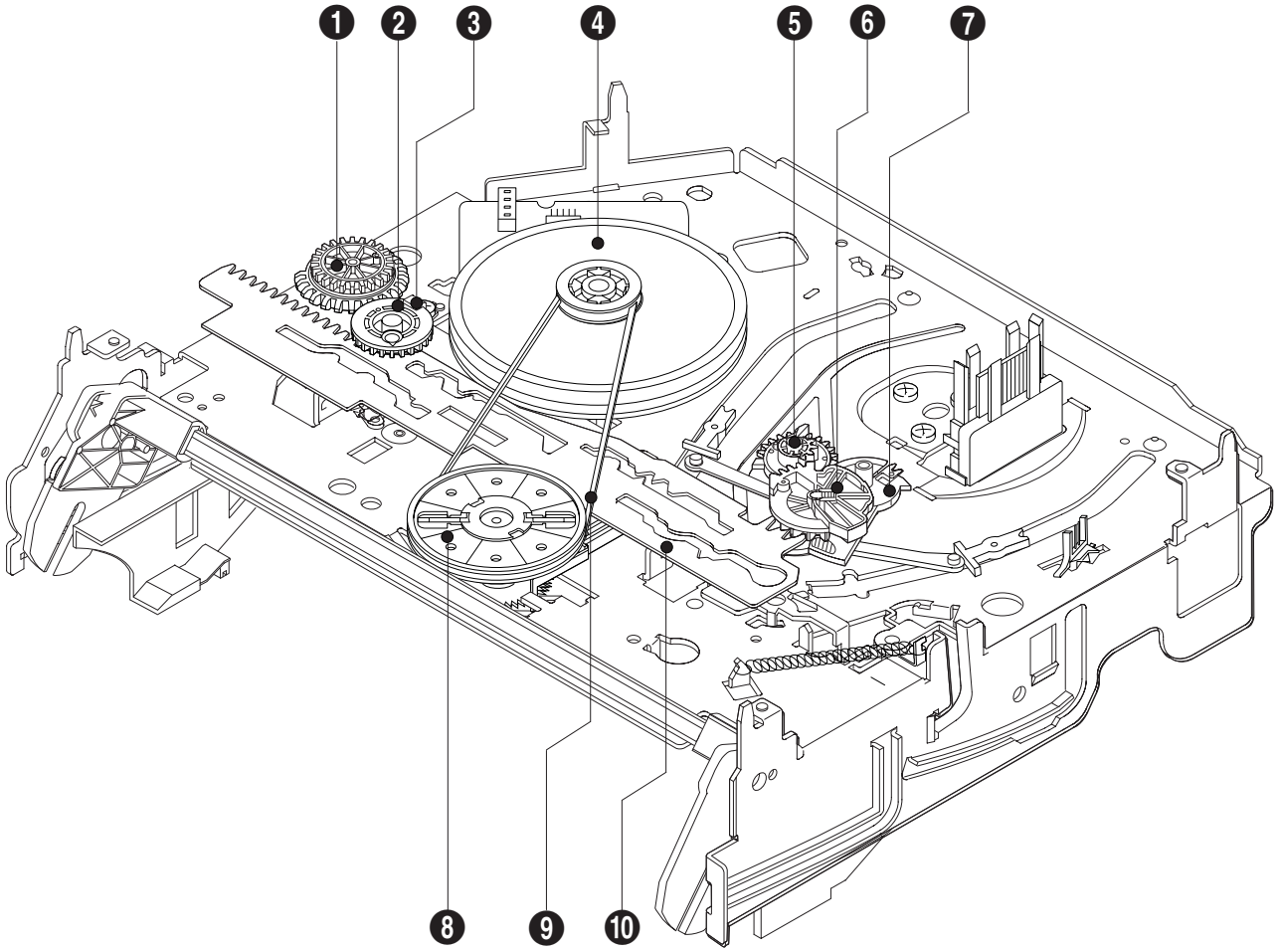


Fig. 3-3 Bottom Parts Location

1. GEAR JOINT 1
2. GEAR JOINT 2
3. BRACKET GEAR
4. MOTOR CAPSTAN ASS'Y
5. LEVER T LOAD ASS'Y
6. GEAR LOADING DRIVE
7. LEVER S LOAD ASS'Y
8. HOLDER CLUTCH ASS'Y
9. BELT PULLEY
10. SLIDER CAM

3-3 Main Deck

3-3-1 Lever FL Door Removal

1) Push the Holder FL Cassette Ass'y ❶ about 20mm in the direction of arrow “A”.
2) Rotate the Lever FL Door ❷ in the direction of arrow “B”.
3) Release the Hook ❸ and Remove the Lever FL Door ❷ in the direction of arrow “C”.

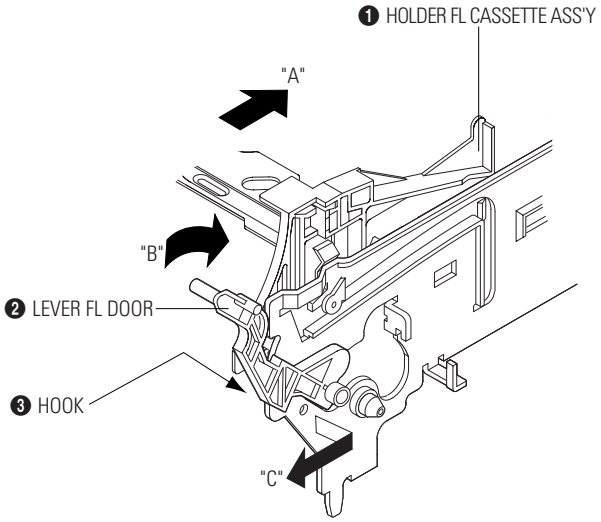


Fig. 3-4 Lever FL Door Removal

3-3-2 Holder FL Cassette Ass’y Removal

1) Pull the Holder FL Cassette Ass'y ❶ to the eject position.
2) Pull the Holder FL Cassette Ass'y ❶ as grasping the Holder FL Cassette Ass'y ❶ and Lever FL Cassette-R ❷ in the same time to release hooking from Main Base until the Boss [A] of Holder FL Cassette Ass'y ❶ is taken out from the Rail [B].
3) Lift the Holder FL Cassette Ass'y ❶, in this time, you have to grasp the Lever FL Cassette-R ❷ Continuously until the Holder FL Cassette Ass'y ❶ is taken out completely.

Note : Be sure to insert Lever FL Cassette-R ❷ in the direction of “A” to prevent separation and breakage of the Lever FL Cassette-R ❷ at disassembling and reassembling.

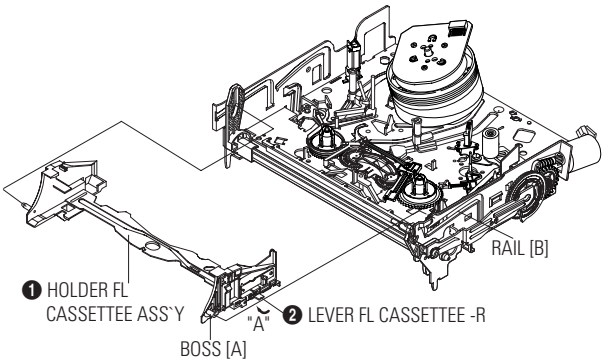


Fig. 3-5 Holder FL Cassette Ass’y Removal

3-3-3 Slider FL Drive, Gear FL Cam Removal

1) Pull the Slider FL Drive ❶ to the front direc - tion.
2) Remove the Slider FL Drive ❶ in the direction of arrow. (Refer to Fig. 3-6)
3) Remove the Gear FL cam ❷.

Note : When reinstalling be sure to reassemble Slider FL drive ❶ after you insert the Boss of Lever FL ARM-R in Groove of Slider Fl drive ❶.

Assembly : Align the Gear FL Cam ❶ with the Gear worm wheel Post as shown drawing. (Refer to Timing point)

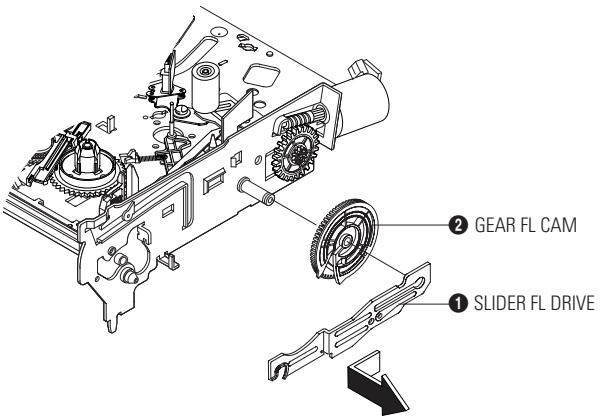


Fig. 3-6 Slider FL Drive Removal

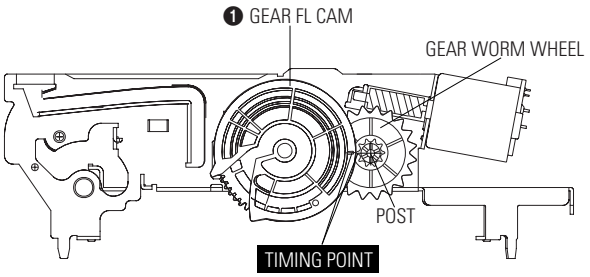


Fig. 3-7 Gear FL Cam, Gear Worm

3-3-4 Lever FL Arm Ass'y Removal

1) Push the hole "A" in the direction of arrow "B" use the pin.(about Dia. 2.5)
2) Pull out the Lever FL Arm Ass'y ❶ from the Boss of Main Base.
3) Remove the Lever FL Arm Ass'y ❶ in the direction of arrow "C".

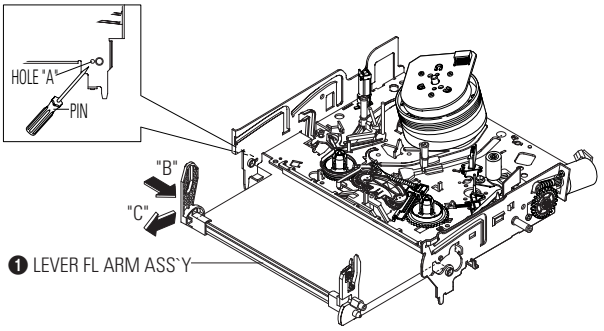


Fig. 3-8 Lever FL Arm Ass'y Removal

3-3-5 Gear Worm Wheel Removal

1) Remove the Gear Worm wheel ❶.

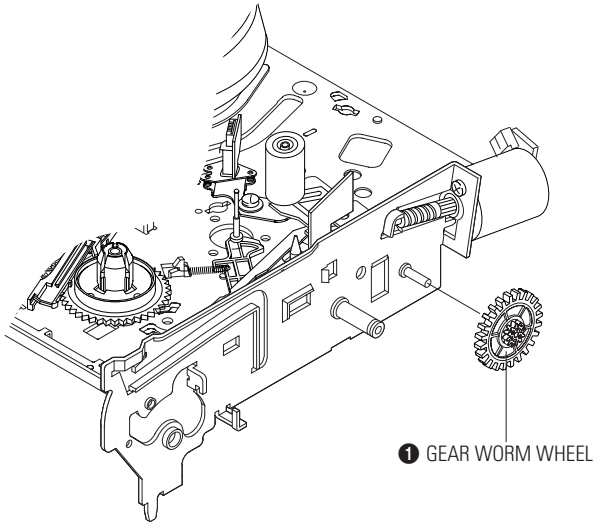


Fig. 3-9 Gear Worm Wheel Removal

3-3-6 Motor Loading Ass'y Removal

1) Remove the screw ❶.
2) Remove the Motor Loading Ass'y ❷.

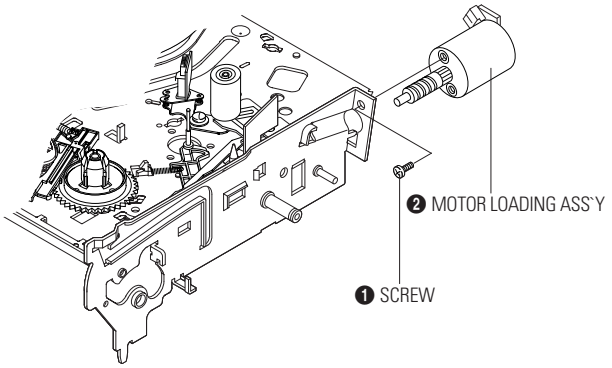


Fig. 3-10 Motor Loading Ass'y Removal

3-3-7 Bracket Gear, Gear Joint 2, 1 Removal

1) Remove the SCREW ❶.
2) Remove the Bracket Gear ❷.
3) Remove the Gear Joint 2 ❸.
4) Remove the Gear Joint 1 ❹.

Assembly :
1) Be sure to align dot mark of Gear Joint 1 ❶ with dot mark of Gear Joint 2 ❷ as shown Fig 3-12.
(Refer to Timing point1)
2) Confirm the Timing Point 2 of the Gear Joint 2 ❷ and Slider Cam ❸.

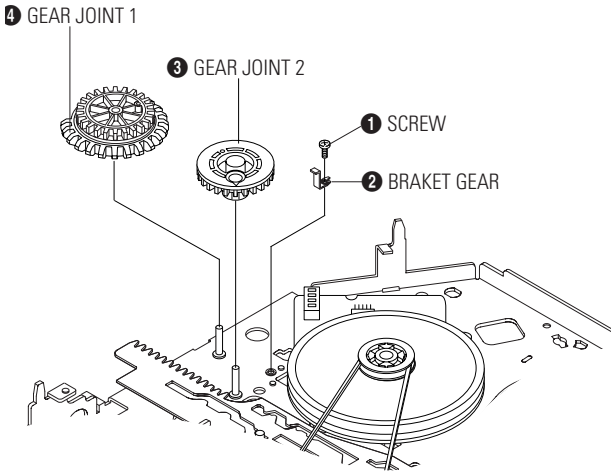


Fig. 3-11 Bracket Gear, Gear Joint 1,2 Removal

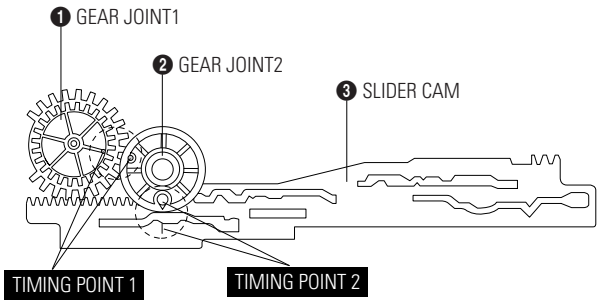


Fig. 3-12 Gear Joint 1,2 Assembly

3-3-8 Gear Loading Drive, Slider Cam, Lever Load S, T Ass'y Removal

1) Remove the Belt Pulley. (Refer to Fig. 3-30)
2) Remove the Gear Loading Drive ❶ after releasing Hook [A] in the direction arrow as shown in detail drawing.
3) Remove the Slider Cam ❷.
4) Remove the Lever Load ❸, Link Load ❺ & Lever Load ❹, Link Load ❻.

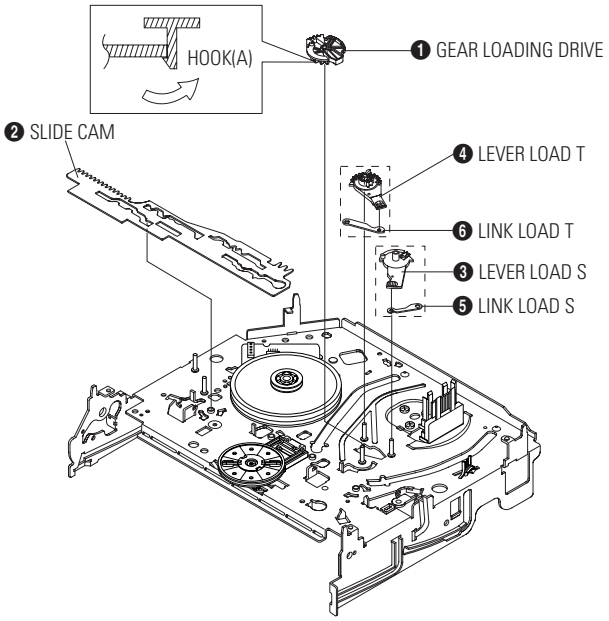


Fig. 3-13 Gear Loading Drive, Slider Cam, Lever T, S Load Ass'y Removal

3-3-9 Gear Loading Drive, Slider Cam, Lever Load S, T Ass'y Assembly

1) When reinstalling, be sure to align dot of Lever Load T Ass'y ❶ with dot of Lever Load S Ass'y ❷ as shown in drawing, (Refer to Timing Point 1).
2) Insert the Pin A,B,C,D into the Slider Cam ❸ hole,
3) Be sure to align dot of Lever Load T ❶ and dot of Gear Loading Drive ❹, (Refer to Timing Point 2).
4) Aline dot of Gear Loading drive ❹ with mark of Slider Cam ❸ as shown in drawing(Refer to Timing Point 3).

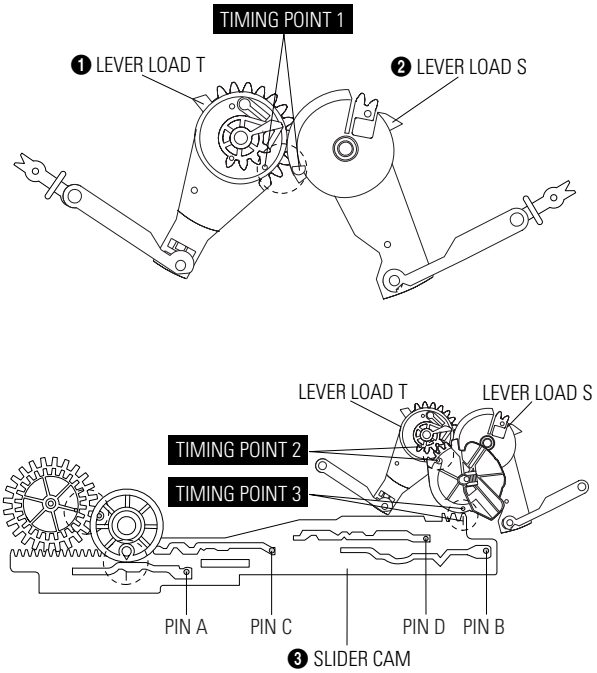


Fig. 3-14 Gear Loading Drive, Slider Cam, Lever Load S, T Ass'y Assembly

3-3-10 Lever Pinch Drive, Lever Tension Drive Removal

1) Remove the Lever Pinch Drive ❶, Lever Tension Drive ❷.

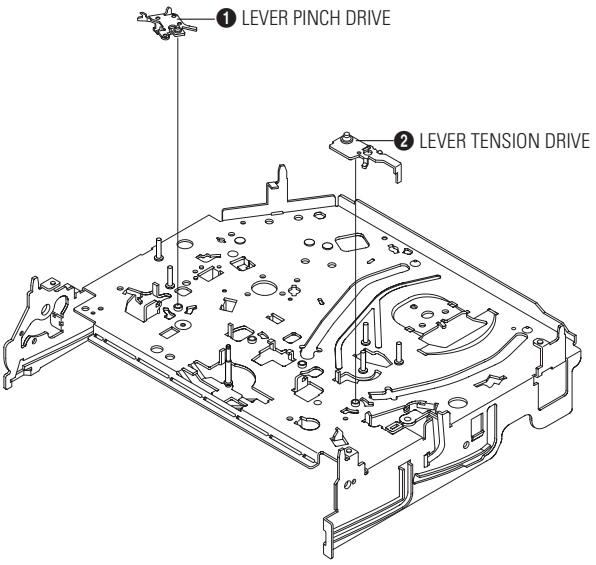


Fig. 3-15 Lever Pinch Drive, Lever Tension Drive Removal

3-3-11 Lever Tension Ass'y, Band Brake Ass'y Removal

1) Remove the Lever Brake S Ass'y (Refer to Fig 3-17).
2) Remove the Spring Tension Lever ❶.
3) Rotate stopper of Main Base in the direction of arrow "A".
4) Lift the Lever Tension Ass'y ❷ & Band brake Ass'y ❸.

Note :
1) When replacing the Lever Tension Ass'y ❷, be sure to apply Grease on the post,
2) Take care not to touch stain on the felt side, and not to be folder and broken Band brake Ass'y
3) After Lever Tension Ass'y seated, Rotate stopper of Main Base to the Mark[B].

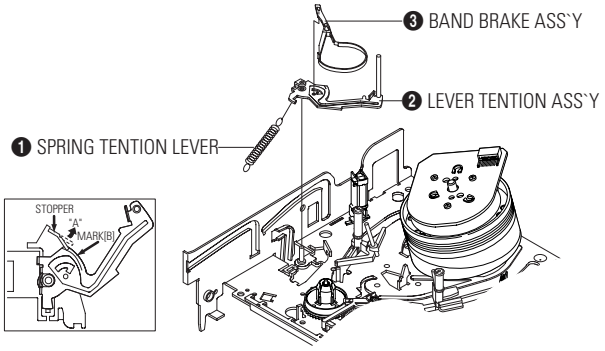


Fig. 3-16 Lever Tension Ass'y, Band Brake Ass'y Removal

3-3-12 Lever Brake S, T Ass'y Removal

1) Release the Hook [A] and the Hook [B], [C] in the direction of arrow as shown in Fig 3-17.
2) Lift the Lever S, T Brake Ass'y ❶, ❷ with spring brake ❸.

Assembly :
1)Assembly the Lever S Brake Ass'y ❶ on the Main Base.
2)Assembly the Lever T Brake Ass'y ❷ with spring brake ❸.

Note : Take extreme care not to be folded and transformed Spring Brake at removing or reinstalling.

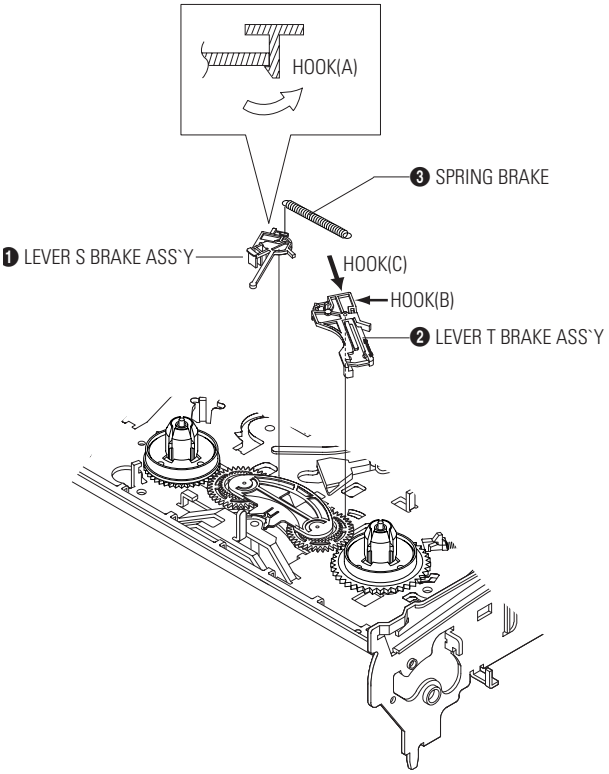


Fig. 3-17 Lever Brake S, T Ass'y Removal

3-3-13 Gear Idle Ass'y Removal

1) Push the Lever Idle ❶ in the direction of arrow "A", "B".
2) Lift the Lever Idle ❶.

Assembly :
1) Apply oil in two Bosses of Lever Idle ❶.
2) Assemble the Gear Idle ❷ with the Lever Idle ❶.

Note : When replacing the Gear Idle ❷, be sure to add oil in the boss of Lever Idle ❶.

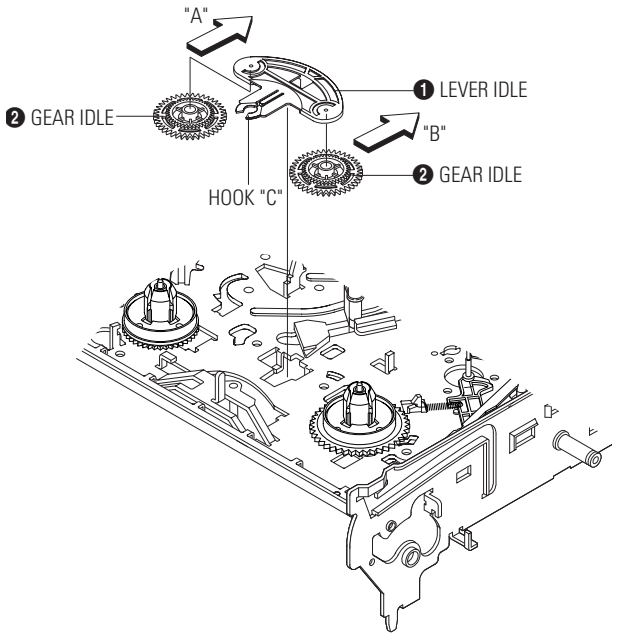


Fig. 3-18 Gear Idle Ass'y Removal

3-3-14 Disk S, T Reel Removal

1) Lift the Disk S, T Reel ❶, ❷.

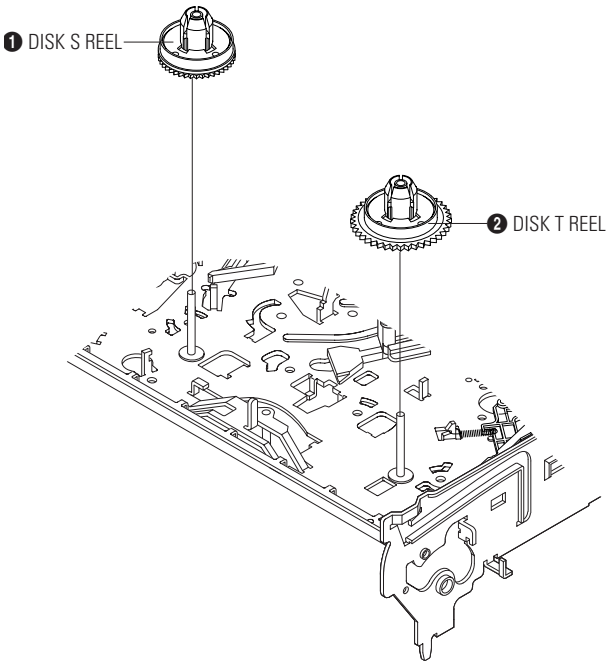


Fig. 3-19 Disk S, T Reel Removal

3-3-15 Holder Clutch Ass'y Removal

1) Remove the Washer Slit ❶.
2) Lift the Holder Clutch Ass'y ❷.

Note : When you reinstall Holder Clutch Ass'y
1) Check the condition of spring as shown in detail A.
2) Don't push Holder Clutch Ass'y down with excessive force Just insert Holder Clutch Ass'y into post center with dead force and Rotate it smoothly.
   Be sure to confirm that spring is in the slit of Gear Center Ass'y as shown in detail B.

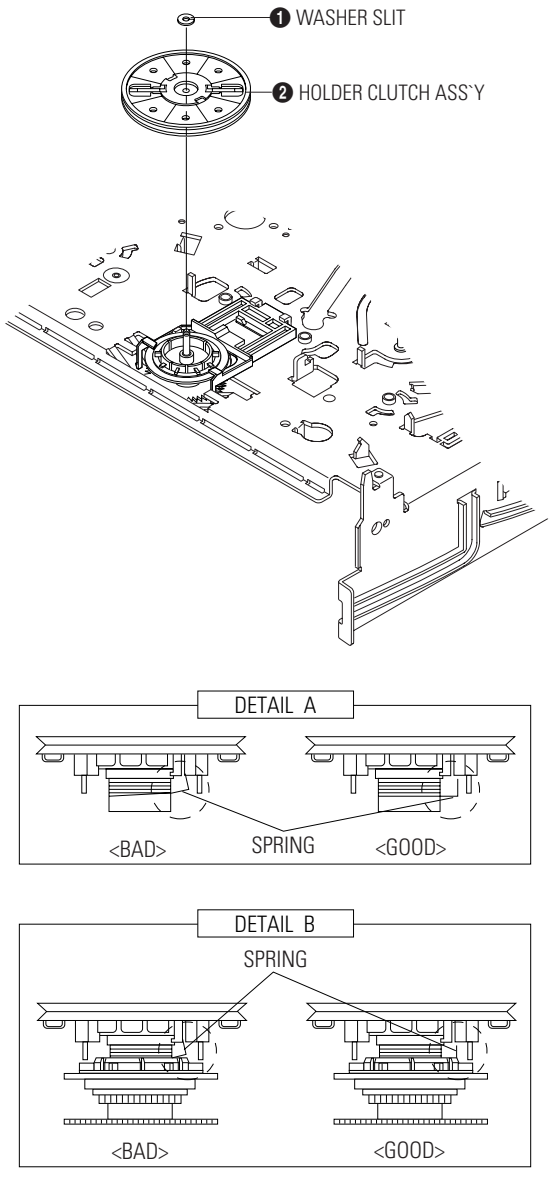


Fig. 3-20 Holder Clutch Ass'y Removal

3-3-16 Lever Up Down Ass'y, Gear Center Ass'y Removal

1) Remove the 2 hooks in the direction of arrow as shown Fig. 3-21 and lift the Lever Up Down Ass'y ❶.
2) Lift the Gear Center Ass'y ❷.

Assembly :
1) Insert the Lever Up Down Ass'y ❶ in the rectangular holes on Main Base as shown in Fig 3-22.
2) Lift the Lever Up Down Ass'y ❶ about 35°. (Refer to Fig 3-22)
3) Insert Ring of the Gear Center Ass'y ❷ in the Guide of the Lever Up Down Ass'y ❶.
4) Insert the Gear Center Ass'y ❷ in the post on Main Base.
5) Push down the Lever Up Down Ass'y ❶ for locking of the Hook.

Note :
1) Take care not to separate and sentence does not mark sense.
2) Be sure to confirm that Ring of the Gear Center Ass'y ❷ is in the Guide of the Lever Up Down Ass'y ❶ after finishing assembly of Lever Up Down Ass'y ❶ and Gear Center Ass'y ❷.

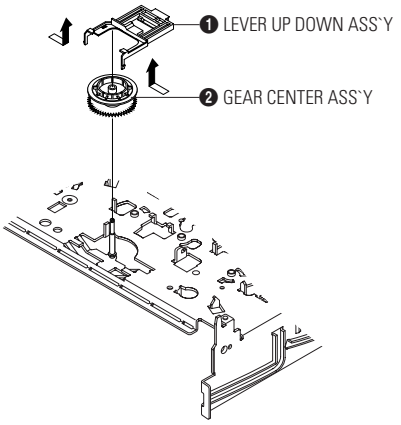


Fig. 3-21 Lever Up Down Ass'y Removal

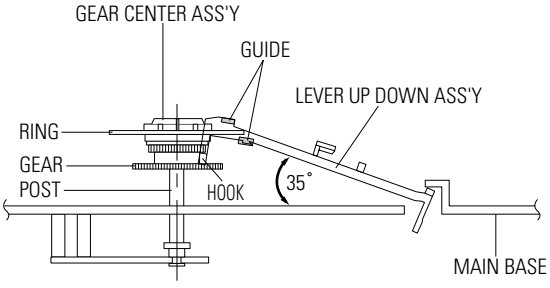


Fig. 3-22 Lever Up Down Ass'y Removal

3-3-17 Guide Cassette Door Removal

1) Lift the Hook [A].
2) Rotate the Guide Cassette Door ❶ in the direction of arrow.

Note : After reinstalling the Guide Cassette Door ❶ sure the Hook [A].

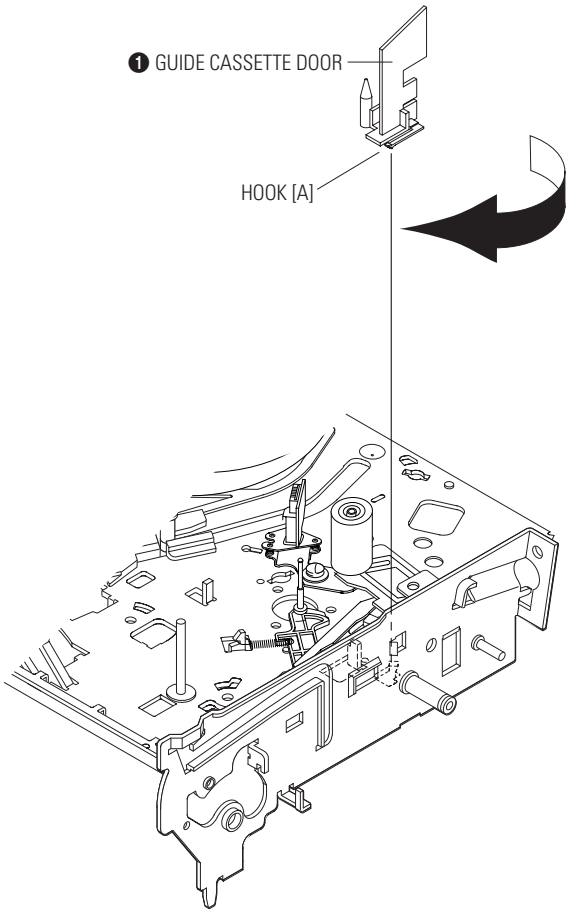


Fig. 3-23 Guide Cassette Door Removal

3-3-18 Lever Unit Pinch Ass'y, Plate Joint, Spring Pinch Drive Removal

1) Lift the Unit Pinch Ass'y ❶.
2) Remove the Plate Joint ❷ from Lever Pinch Drive.
3) Remove the Spring Pinch Drive ❸.

Note :
1) Take extreme care not to touch the grease on the Roller Pinch.
2) When reinstalling, be sure to apply grease on the post pinch roller.

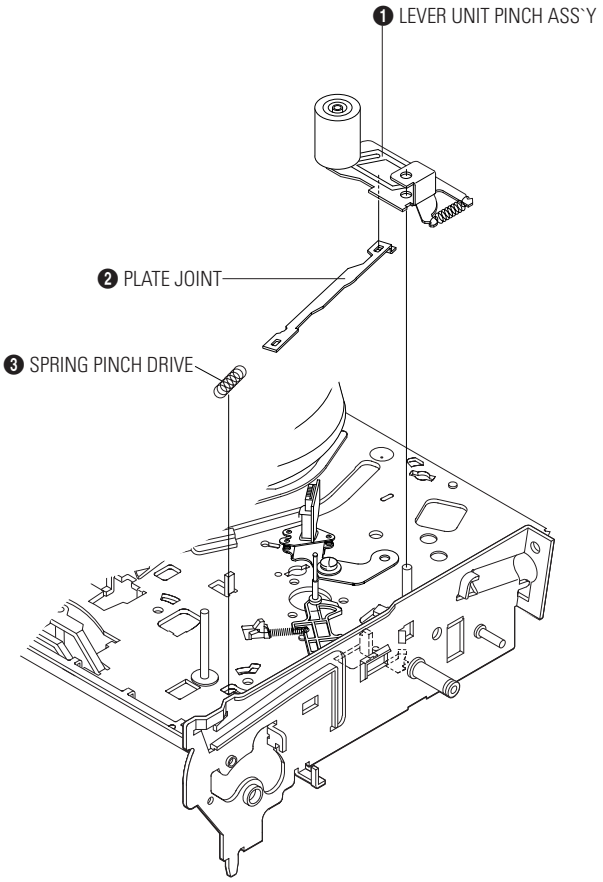


Fig. 3-24 Lever Unit Pinch Ass'y, Plate Joint, Spring Pinch Drive Removal

3-3-19 Lever #9 Guide Ass'y Removal

1) Remove the Spring #9 Guide ❶.
2) Lift the Spring #9 Guide Ass'y ❷ in the direction of arrow "A".

Note :
1) Take extreme care not to get grease on the tape Guide Post.
2) After reinstalling, check the bottom side of the Post #9 Guide to the top side of Main Base.

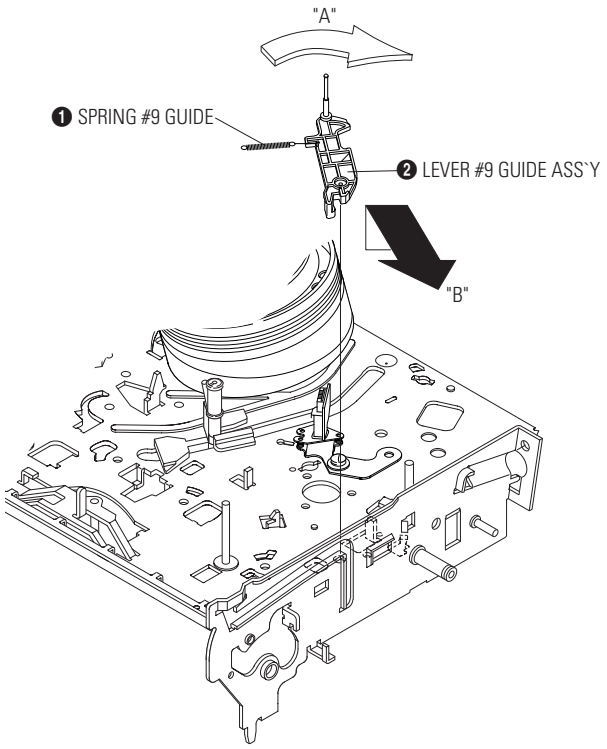


Fig. 3-25 Lever #9 Guide Ass'y Removal

3-3-20 FE Head Removal

1) Remove the screw ❶.
2) Lift the FE Head ❷.

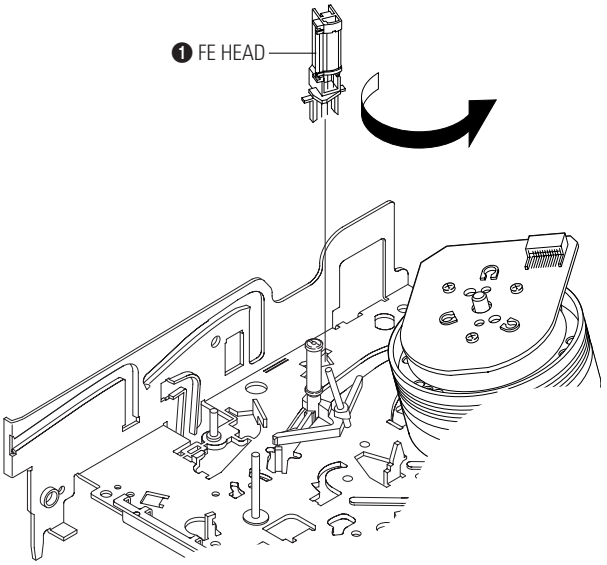


Fig. 3-26 FE Head Removal

3-3-21 ACE Head Removal

1) Pull out the FPC from connector of ACE Head Ass'y ❷.
2) Remove the screw ❶.
3) Lift the ACE Head Ass'y ❷.

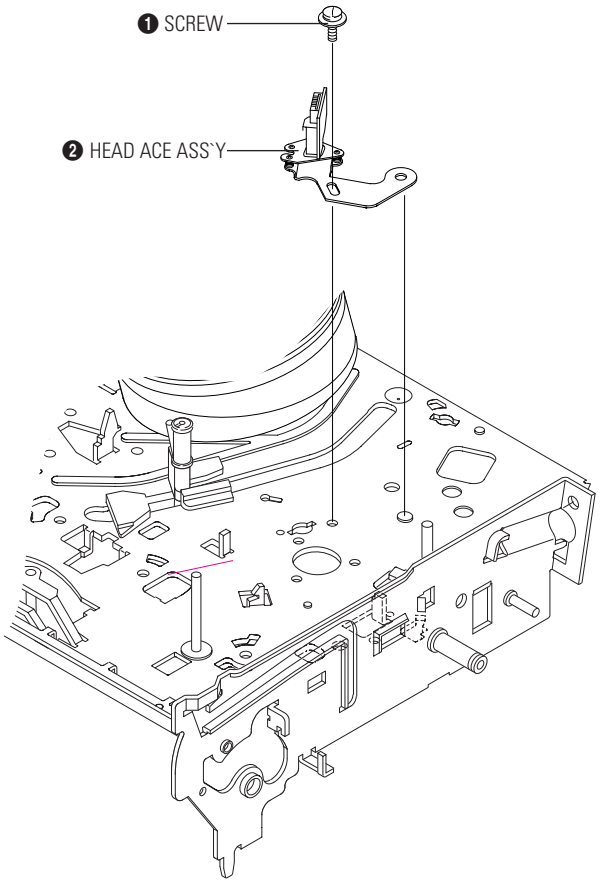


Fig. 3-27 ACE Head Removal

3-3-22 Slider S, T Ass'y Removal

1) Move the Slider S, T Ass'y ❶, ❷ to slot, and then lift it to remove. (Refer to arrow)

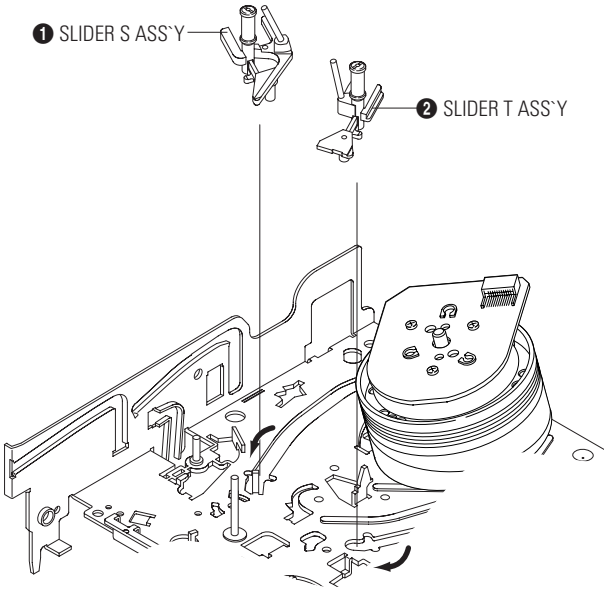


Fig. 3-28 Slider S, T Ass'y Removal

3-3-23 Plate Ground Deck, Cylinder Ass'y Removal

1) Remove the 3 Screws ❶.
2) Lift the Plate Ground Deck ❷.
3) Lift the Cylinder Ass'y ❸.

Assembly :
1) Match the 3 holes in the bottom of Cylinder ass'y ❸ to the 3 holes of Main Base as attending not to drop or knock the Cylinder ass'y ❸.
2) Tighten the 1 Screw ❶.
3) Match the Plate Ground Deck ❷ to the Hole of Base Main.
4) Tighten the other 2 Screws ❶.

Note :
1) Take care not to touch the Cylinder Ass'y ❸ and the tape guide post at reinstalling.
2) When reinstalling, Don't push down too much on Screw Driver.

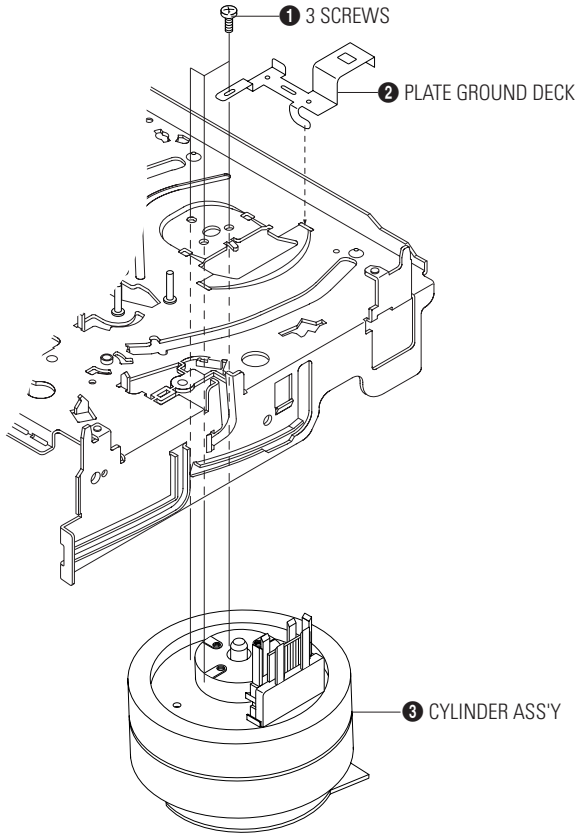


Fig. 3-29 Plate Ground Deck, Cylinder Ass'y Removal

3-3-24 Belt Pulley Removal

1) Remove the Belt Pulley ❶.

Note : Take extreme care not to get grease on Belt Pulley ❶ at assembling or reassembling.

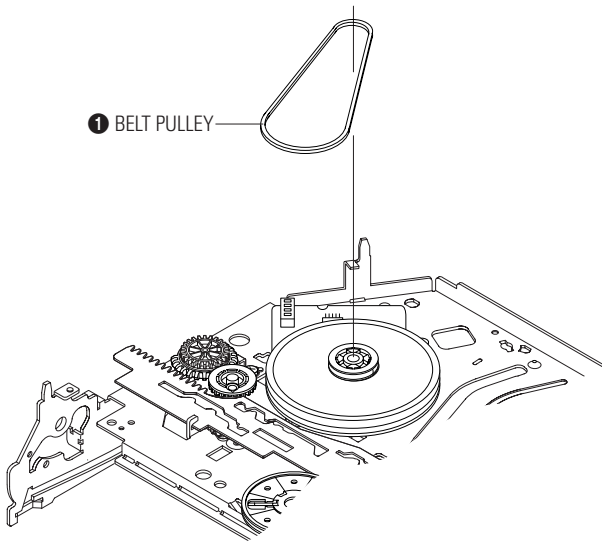


Fig. 3-30 Belt Pulley Removal

3-3-25 Level Head Cleaner Ass'y Removal (Optional)

1) Release the Hook ❶.
2) Lift the Lever Head Cleaner Ass'y ❷.

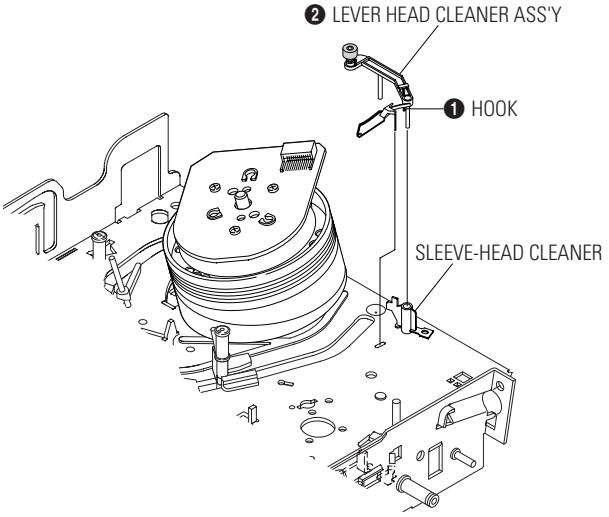


Fig. 3-31 Level Head Cleaner Ass'y Removal

3-3-26 Damper Capstan, Motor Capstan Ass'y Removal

1) Remove the Damper Capstan ❶ in the direction of arrow.
2) Remove the 3 Screws ❷.
3) Remove the Motor Capstan Ass'y ❸.

Assembly :

1) Match the 3 holes of Motor Capstan Ass'y ❸ to the 3 holes of Main Base. Be careful not to drop or knock the Motor Capstan Ass'y ❸.
2) Tighten the 3 Screws ❷ in the direction of arrow as shown detail drawing.
3) Assemble the Damper Capstan ❶.

Note : After tightening screws, check if there is gap between the head of screws and the top side of Main Base. There should have no gap between the head of screws and the top side of Main Base. After reinstalling, adjusting the tape transport system again.

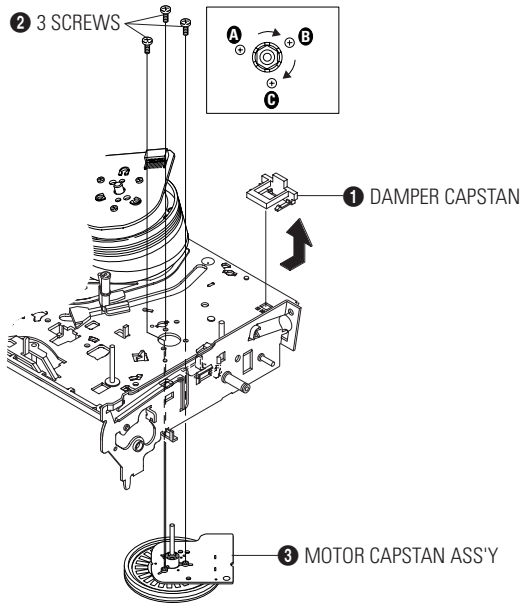


Fig. 3-32 Damper Capstan,Motor Capstan Ass'y Removal

3-3-27 How to Eject the Cassette Tape (If the unit does not operate on condition that is inserted into housing ass'y)

1) Turn the Gear worm ❶ clockwise with screw driver.(Refer to arrow)
   (Other method : Remove the Screw of Motor Load Ass'y, Separate the Motor Load Ass'y)

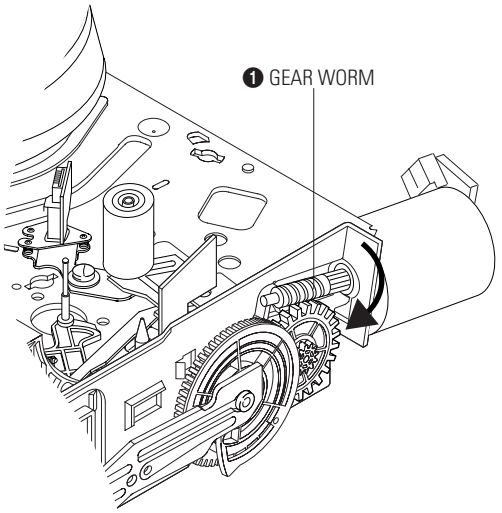


Fig. 3-33 **How to Eject the Cassette Tape**

2) When Slider S,T are approched in the position of unloading, rotate holder Clutch counter-clockwise after inserting screw driver in the hole of frame's bottom in order to wind the unwinded tape.
   (Refer to Fig.3-34)
   (If you rotate Gear Worm ❶ continuously when tape is in state of unwinding, you may cause a tape contamination by grease and tape damage.
   Be sure to wind the unwinded tape in the state of set horizontly.)
3) Rotate Gear Worm ❶ clockwise using screw driver again up to the state of eject mode and then pick out the tape.(Refer to Fig.3-33)

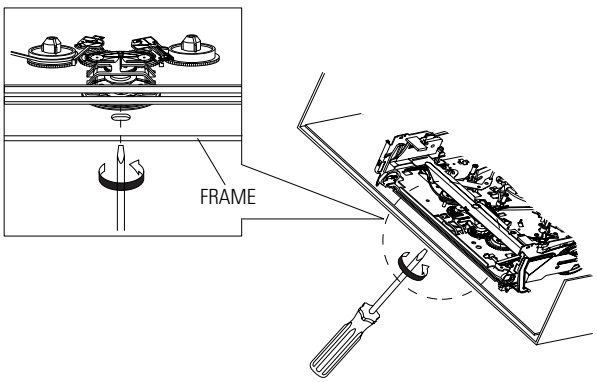


Fig. 3-34

3-4 Tape Transport System and Adjustment Locations

The tape transport system has been adjusted precisely in the factory. Alignment is not necessary except for the following :

1) Noise observed on the screen.
2) Tape damage.
3) Parts replacement in the tape transport system.

Lower flange height of tape guide is used as the reference for the transport adjustment.
To maintain the height of the tape guide and prevent damage, do not apply excessive force onto the main base.

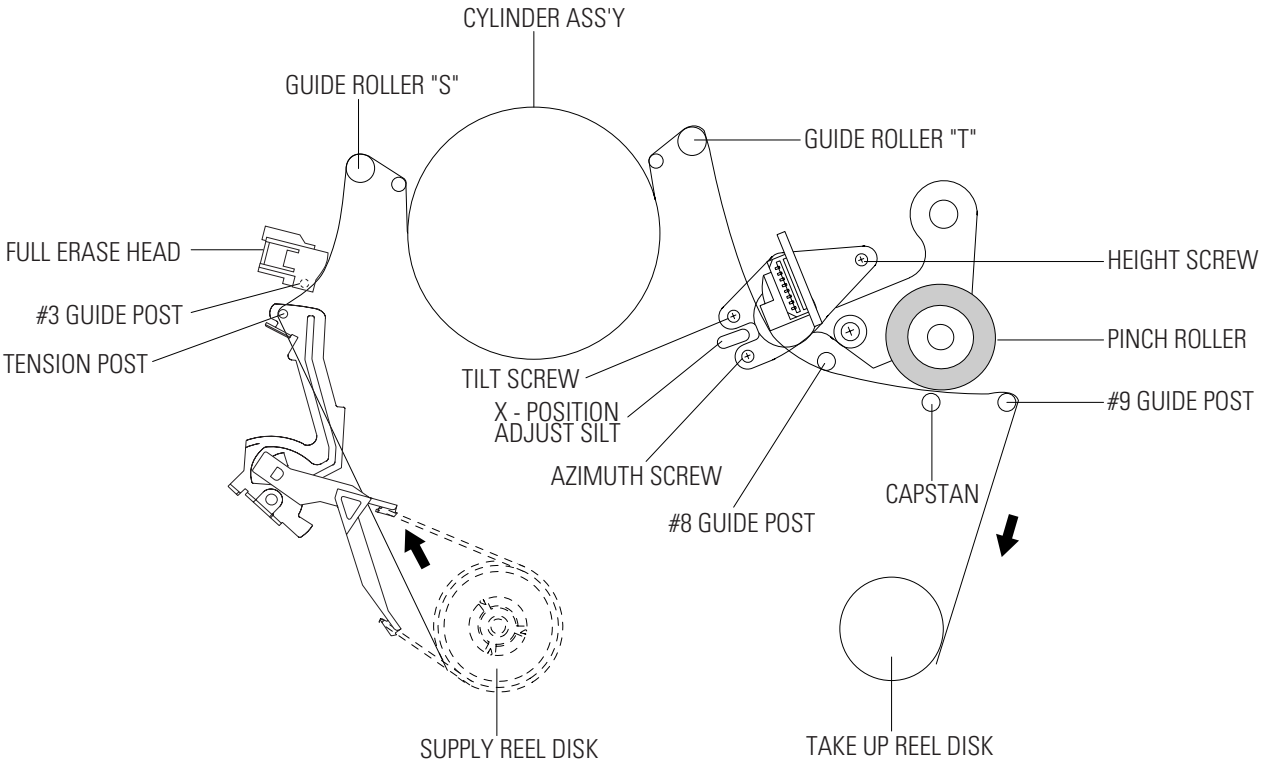


Fig. 3-4-1 Location of Tape Transport Adjustment

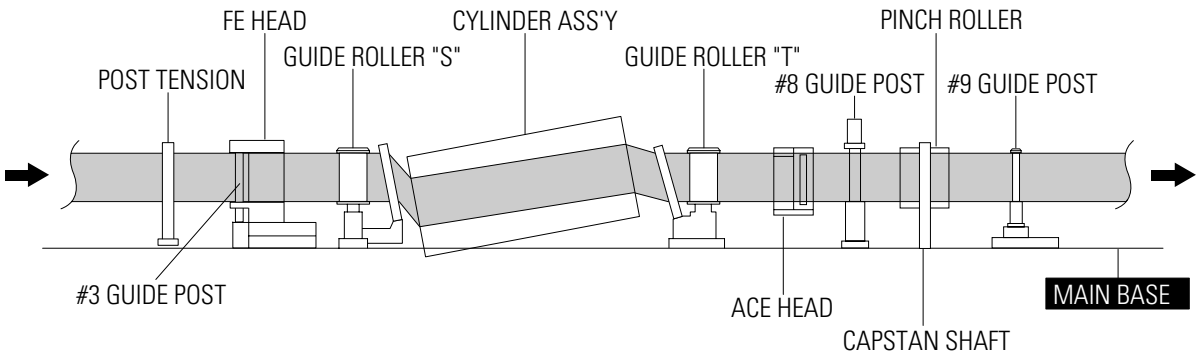


Fig. 3-4-2 Tape Travel Diagram

3-5 Tape Transport System Adjustment

When parts are replaced, perform the required adjustments by referring to procedures for the tape transport system. If there are any changes to the tape path, first run a T-120 tape and make sure excessive tape wrinkle does not occur at the tape guides.

1) If tape wrinkle is observed at the guide roller S, T, turn the guide roller S, T until wrinkle disappears.
2) If the tape wrinkle is still observed at the tape guide, perform the tilt adjustment of the ACE head.
   (See "2. Alignment and Adjustment" of the Service Manual for Test Point Locations.)

3-5-1 ACE Head Assembly Adjustment

3-5-1(a) ACE HEAD HEIGHT ADJUSTMENT

1) Run the alignment tape (Color bar) in the playback mode.
2) Observe surface of the audio head using a dental mirror.
3) Turn screw (C) clockwise or counterclockwise until the gap of lower tape edge and the lower edge of the control head is about 0.25mm.
   (Refer to Fig. 3-5-1 and 3-5-2)

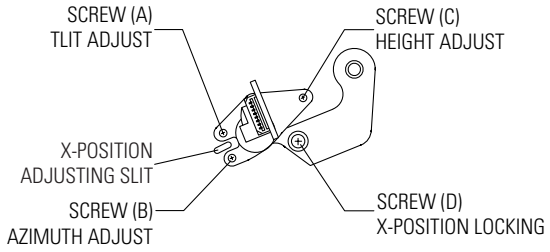


Fig. 3-5-1 Location of ACE Head Adjustment Screw

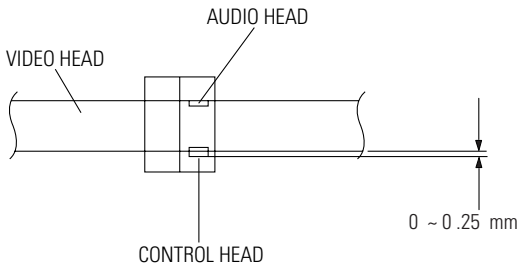


Fig. 3-5-2 ACE Head Height Adjustment

3-5-1(b) ACE HEAD TILT ADJUSTMENT

1) Playback a blank tape and observe the position of the tape at the lower flange of tape guide.
2) Confirm that there is no curl or wrinkle at the lower flange of tape guide as shown in Fig. 3-5-3 (B).
3) If a curl or wrinkle of the tape occurs, slightly turn the screw (A) tilt adjust on the ACE head ass'y.
4) Reconfirm the ACE head height.

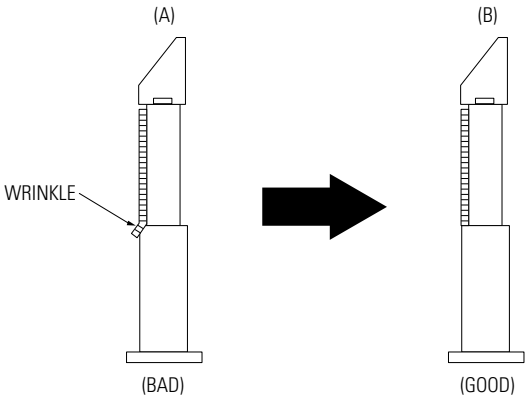


Fig. 3-5-3 Tape Guide Check

3-5-1(c) AUDIO AZIMUTH ADJUSTMENT

1) Load alignment tape (Mono scope) and playback the NTSC : 7KHz (PAL : 6KHz) signal.
2) Connect channel-1 scope probe to audio output. (Monitor Output)
3) Adjust screw (B) to achieve maximum audio level. (See Fig. 3-5-1)

4-5-1(d) ACE HEAD POSITION (X-POINT) ADJUSTMENT

1) See = (Alignment and Adjustment) for ACE Head position (X-Point) adjustment.

(Alignment and Adjustment)

1. Load alignment tape (Mono Scope) and play back a 7KHz signal. (SP Mode)

2. Connect CH1 scope probe to J008 or J009 (Monitor Audio Out) CH2 scope probe to TPM01 H'D SW Adjust sync to Channel 1.

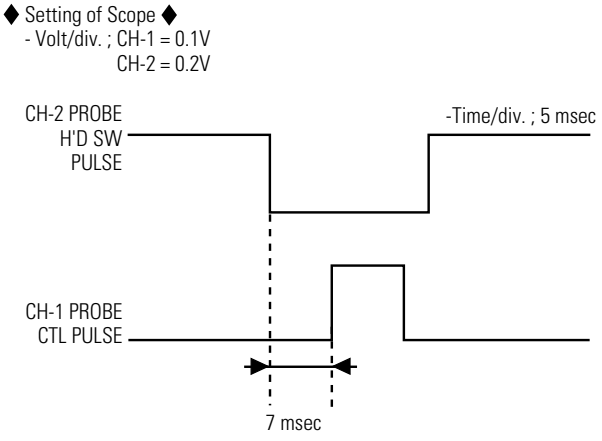
3) Set the control pulse to 7 msec using the Fine tracking buttons +/- on the remote control. (see Fig. (A),(B))

4) Connect CH1 scope probe to TPM01 Video ENV.

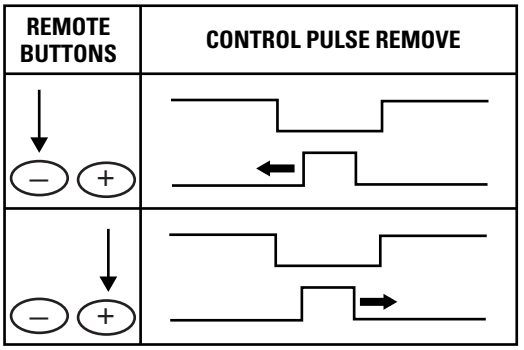
5) Insert the adjusting driver into the X-position adjusting gear and adjust the driver for maximum envelope waveform.

Note:
Do not adjust the X-point using excessive force. After turning the X-point adjusting screw (D) counteerclock wise a little, perform the adjustment and then tighten the screw. (See Fig. 3-5-1)

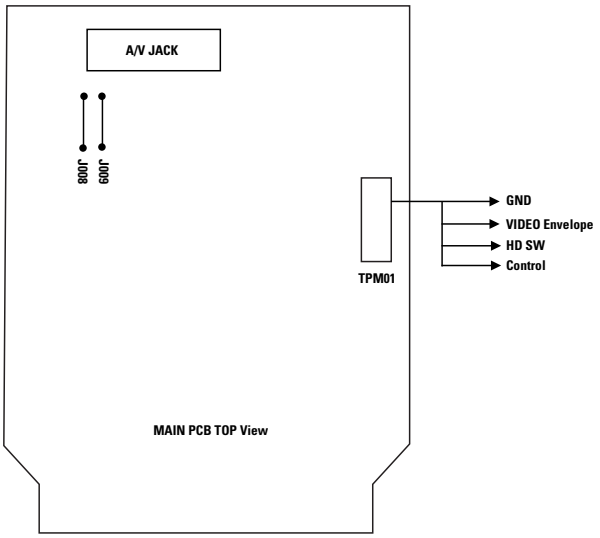
SCOPE SETTINGS



(A) Tracking Preset Adjustment (4HD/6HD)



(B) Control Pulse Adjustment



(C) MAIN PCB VCR TP Point

3-5-2 Linearity adjustment (Guide roller S, T adjustment)

1) Playback the Mono Scope alignment tape (SP mode).
2) Observe the video envelope signal on an oscil-lo-scope (triggered by the video switching pulse).
3) Make sure the video envelope waveform (at its minimum) meets the specification shown in Fig. 3-5-4.
   If it does not, adjust as follows :

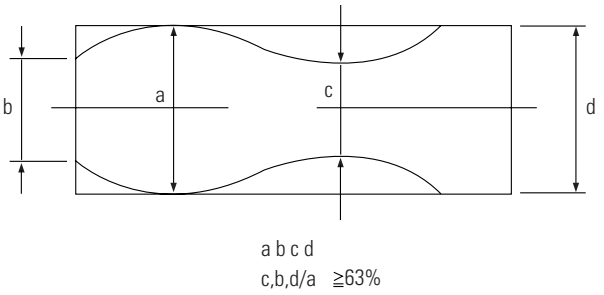


Fig. 3-5-4 Envelope Waveform Adjustment

Note :
a=Maximum output of the video RF envelope.
b=Minimum output of the video RF envelope at the entrance side.
c=Minimum output of the video RF envelope at the center point.
d=Maximum output of the video RF envelope at the exit side.

4) If the section A in Fig. 3-5-5 does not meet the speci-fication, adjust the guide roller S up or down.
5) If the section B in Fig. 3-5-5 does not meet the speci-fication, adjust the guide roller T up or down.

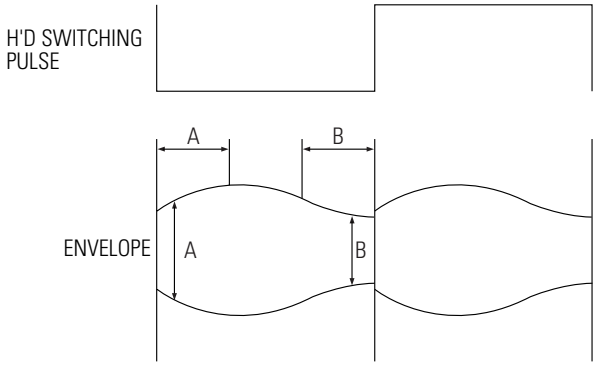


Fig. 3-5-5 Adjustment Points

6) Play back the Mono Scope alignment tape (SP mode).
7) Connect an oscilloscope CH-1 to the Envelope and CH-2 to the H'D SW Pulse for triggering. (TPM01)
8) Turn the guide roller heads with a flat head (▬) driver to obtain a flat video RF envelope as shown in Fig. 3-8.

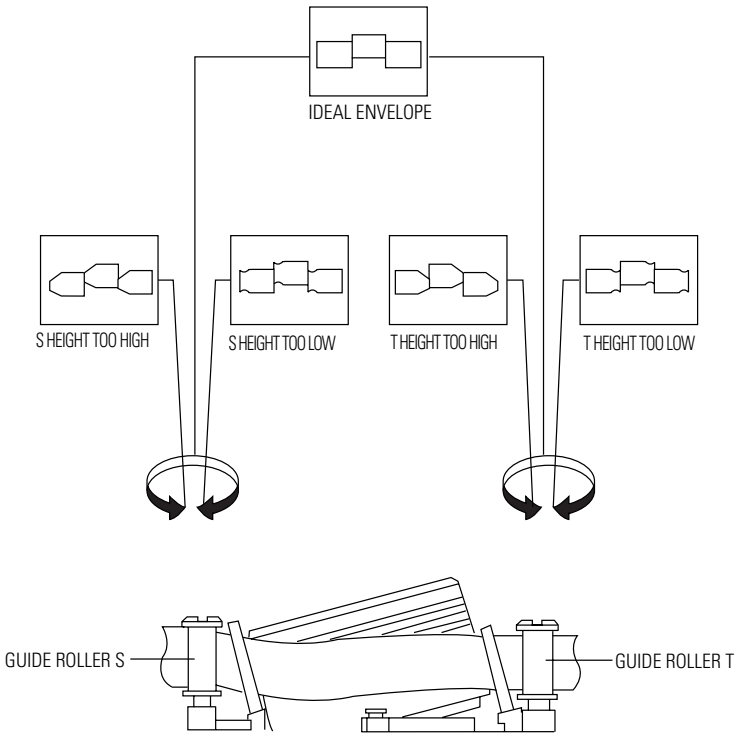


Fig. 3-5-6 Guide Roller S, T Height Adjustment

3-5-3 Check Transitional Operation from RPS to Play

Check transition from RPS mode to play mode : Using a pre-recorded SP tape, make sure the entry side of envelope comes to an appropriate steady state within 3 seconds (as shown in Fig. 3-5-7). If the envelope waveform does not reach specified peak-to peak amplitude within 3 seconds, adjust as follows :

1) Make sure there is no gap between the supply roller lower flange and the tape.
   If there is a gap, adjust the supply guide roller again.
2) Change operation mode from the RPS to the play mode (again) and make sure the entry side of envelope rises within 3 second.

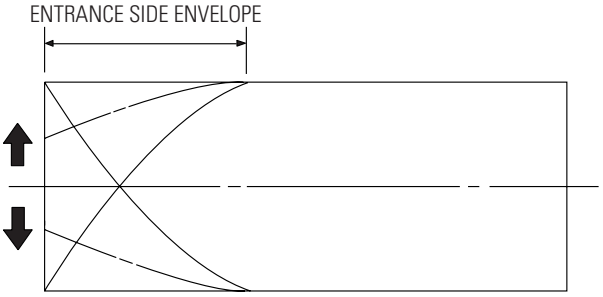


Fig. 3-5-7 Video Envelope Rising when Operation mode Changes from RPS to Play Mode

3-5-4 Envelope Check

1) Make recordings on T-120 (E-120) and T-160 (E-180) tape.
   Make sure the playback output envelope meets the
   specification as shown in Fig. 3-5-8.
2) Play back a self recorded tape (recording made on the unit using with T-120 (E-120).
   The video envelope should meet the specification as shown in Fig. 3-5-8.
   In SP mode, (A) should equal (B).
   If the head gap is wide, upper cylinder should be checked.

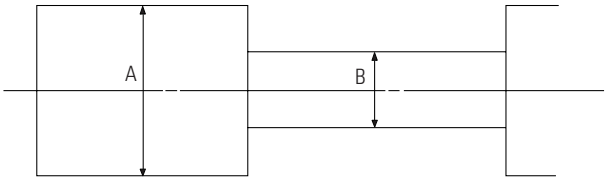


Fig. 3-5-8 Envelope Output and Output Level

3-5-5 Tape Wrinkle Check

1) Run the T-160 (E-180) tape in the playback, FPS, RPS and Pause modes and observe tape wrinkle at each guide.
2) If excessive tape wrinkle is observed, perform the following adjustments in Playback mode :

   Tape wrinkle at the guide roller S, T section :
   Linearity adjustment.
   Tape wrinkle at tape guide flange :
   ACE head assembly coarse adjustment.

3-6 Reel Torque

1) The rotation of the capstan motor causes the Holder Clutch Ass'y to rotate through the Belt Pulley.
2) The spring wrap PLAY/REV of holder clutch ass'y drives the disk reel S, T through gear idle by rotation of gear center ass'y.
3) Brake is operated by slider cam at FF/REW mode.
4) Transportation of accurate driving force is done by gears. (Gear Center Ass'y)

Note : If the spec. does not meet the followings specifications, replace the holder clutch ass'y and then recheck.

<Table 2-1>

MODE	TORQUE g/cm	GAUGE
PB	42± 11	Cassette Torquemeter
RPS	145 ± 30	Cassette Torquemeter

3-7 Deck

3-7-1 Tray Disc Removal

(1) Insert a Screw Driver ❶ into Emergency Hole ❷ and push the Slider Housing ❸ in the direction arrow "A".
(2) When the Tray Disc ❹ comes out a little, pull it in the direction arrow "B" by hand.
(3) Pull the Tray Disc ❹ to disassemble , while simultaneously pushing 2 Stoppers ❺ (left, right) in the direction arrow "C", "D".

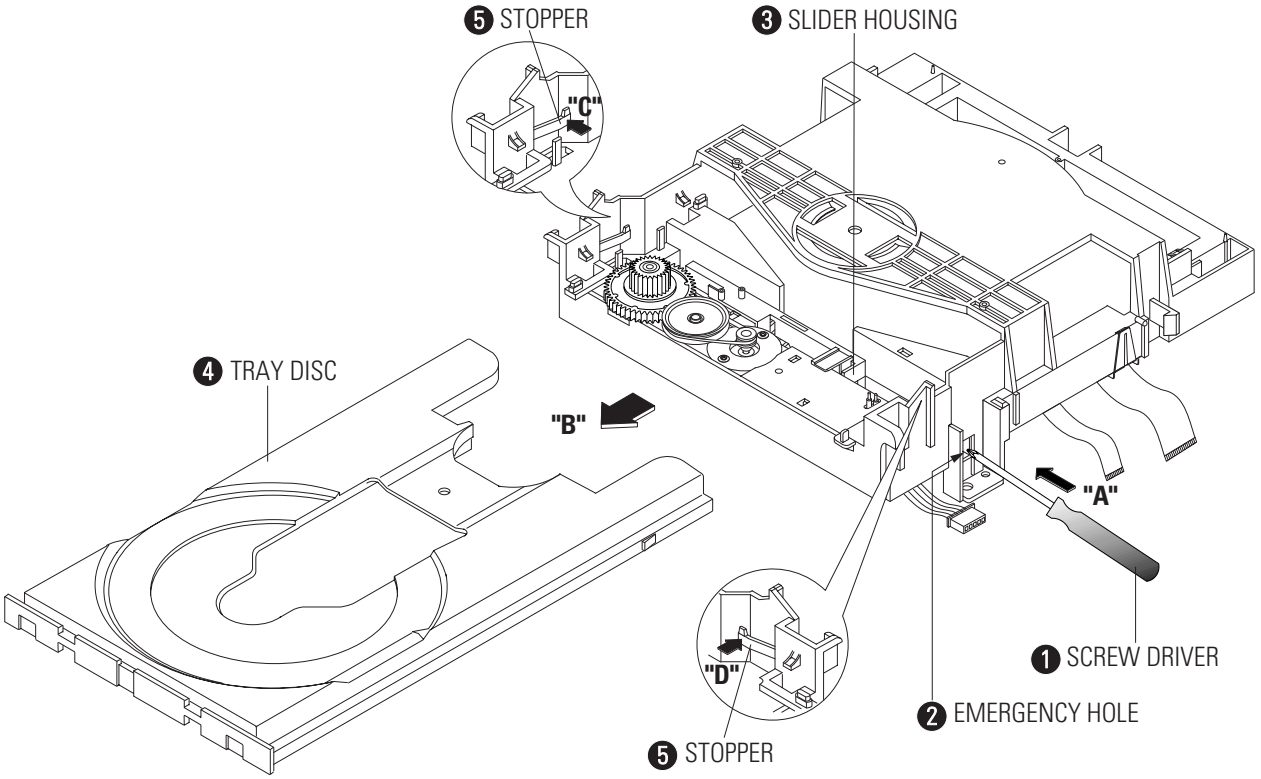


Fig. 3-7-1 Tray Disc Removal

3-7-2 Assy P/U Deck Removal

(1) Disconnect DCN2 ❶, DCN3 ❷.
(2) Lift down the Assy P/U Deck ❸ while simultaneously pushing 2 Hooks ❹, ❺ in the direction of arrow
"A", "B".

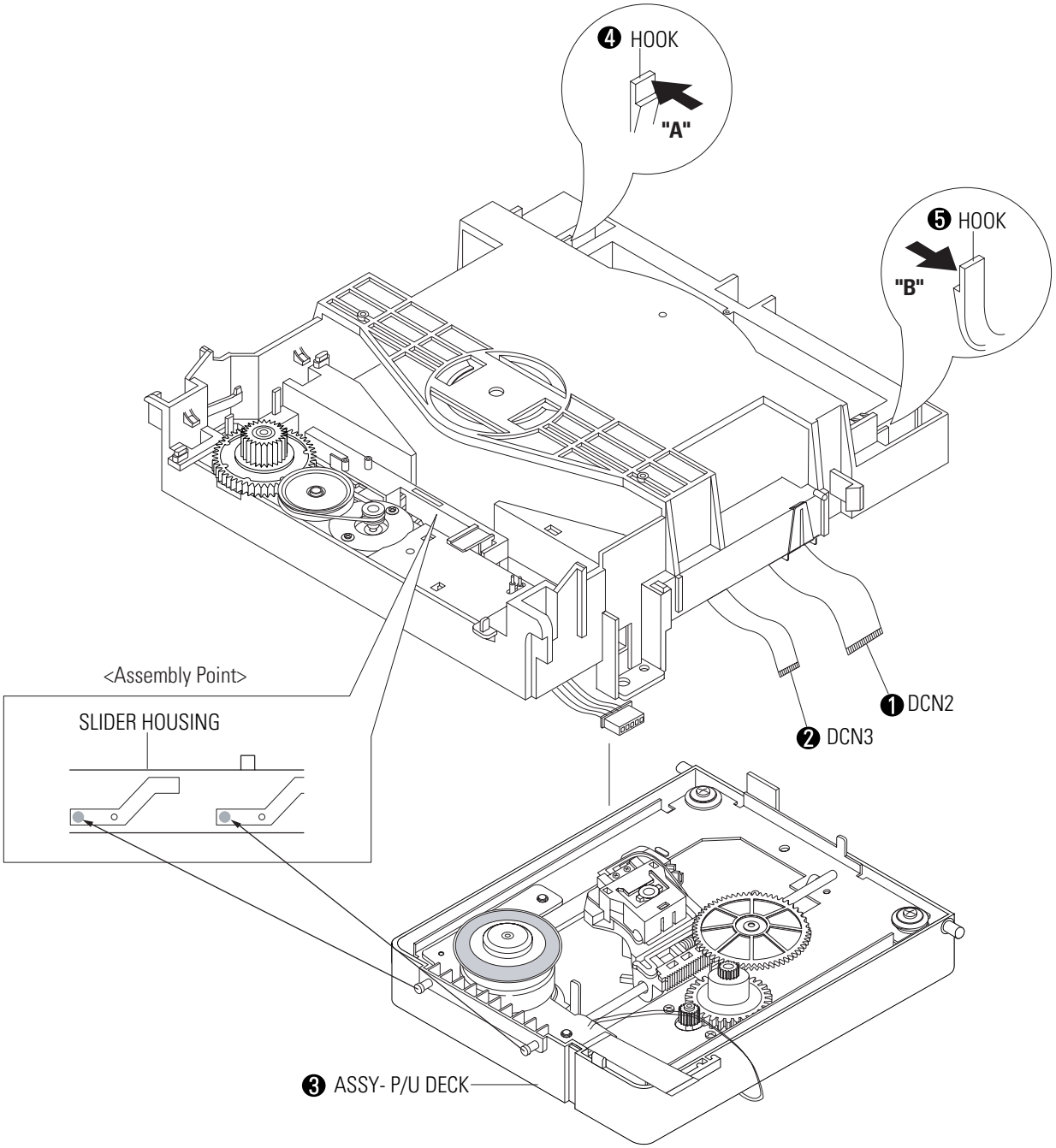


Fig. 3-7-2 Assy P/U Deck Removal

3-7-3 Housing Ass'y Removal

(1) Remove Belt ❶.
(2) Push the Hook ❷ in the direction arrow "A" and lift up Pulley Gear ❸.
(3) Push the Slider Housing ❺ in the direction arrow "B" and lift up the Gear Tray ❹.
(4) Lift up the Slider Housing ❺.
(5) Remove the soldering ❻ of 2 points (Red, Black).
(6) Remove 2 Screws ❼ and lift dowm the Motor Load Assy ❽ .
(7) Push the 3 Hooks ❾ bottom side in the direction arrow "C" and lift up the Housing PCB ❿.
(8) Push the Hooks ⓫ and remove Deck PCB ⓬.

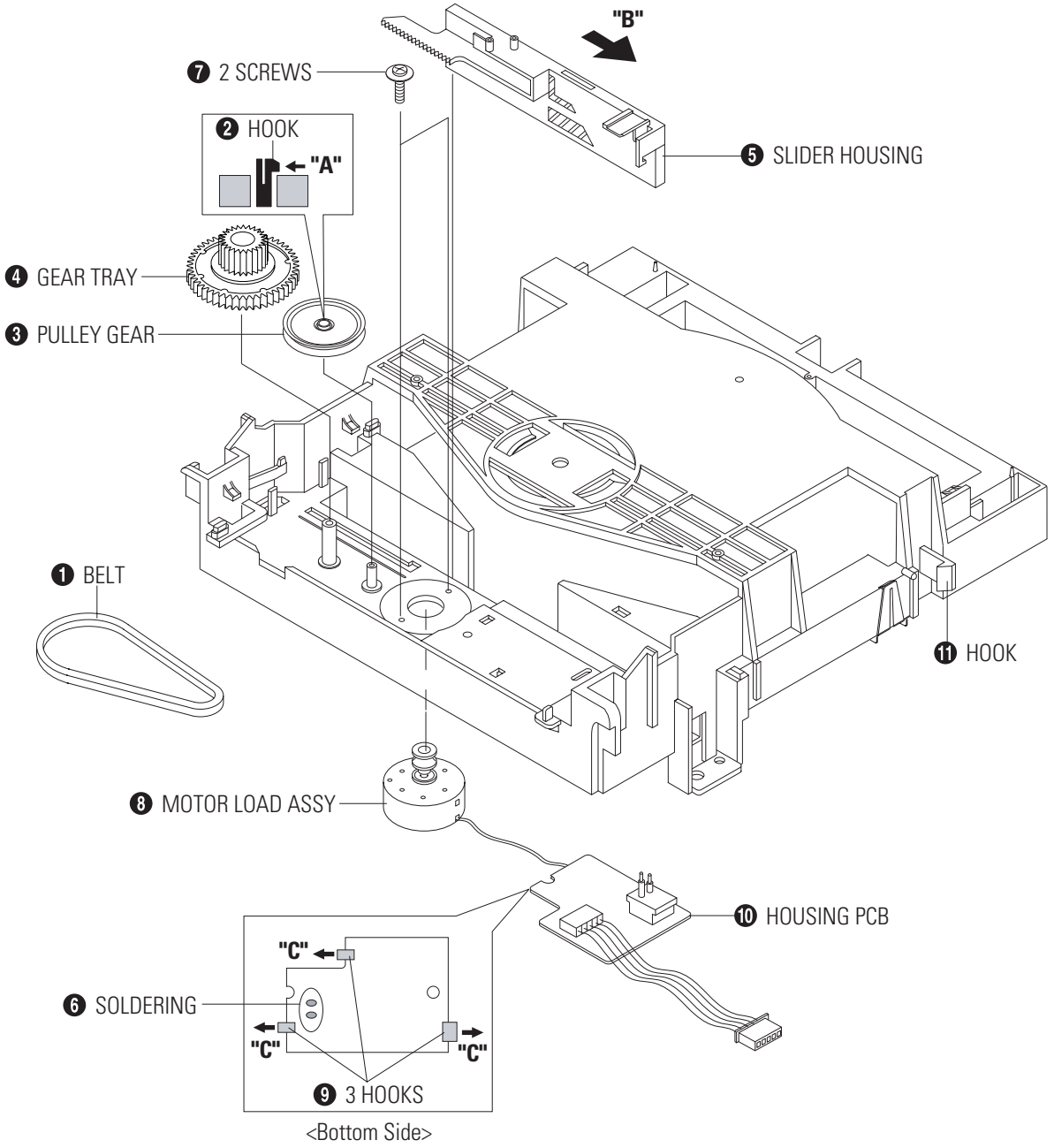


Fig. 3-7-3 Housing Ass'y Removal

3-7-4 Sub Chassis Removal

(1) Remove the Soldering of Motor Feed (+,- wire) ❶ .
(2) Remove the 4 Screws ❷ .
(3) Lift up the Ass'y Brkt Deck ❸ .

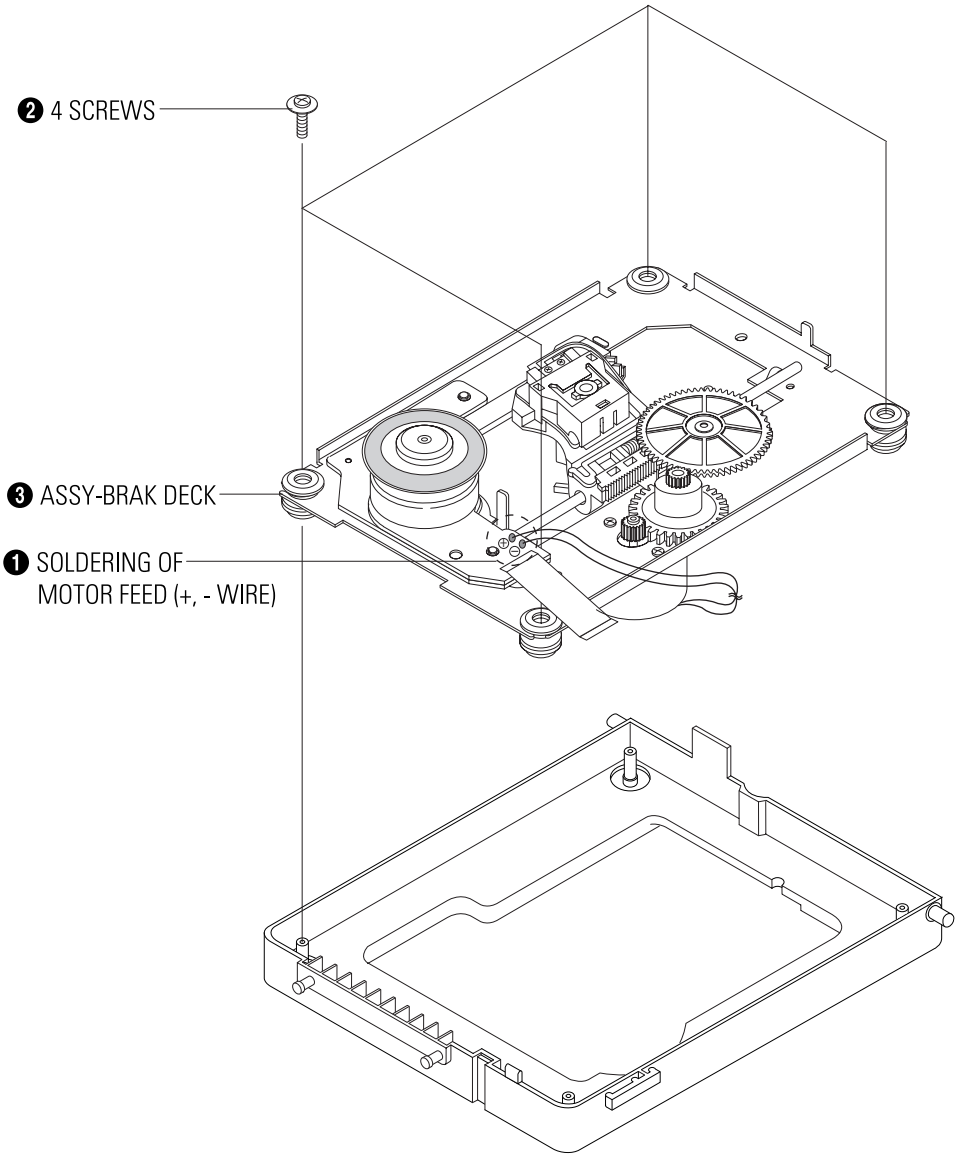


Fig. 3-7-4 Sub Chassis Removal

3-7-5 Ass'y Brkt Deck Removal

(1) Remove Washer ❶.
(2) Remove Gear Feed B ❷ , Gear Feed A ❸ .
(3) Remove 2 Screws ❹ .
(4) Remove Shaft Pick-Up ❺ and Pick-Up Assy ❻ .
(5) Remove 1 Screw ❼ .
(6) Remove 2 Screws ❽ .
(7) Remove 3 Spring Spindle ❾ and Motor Spindle Ass'y ❿ .

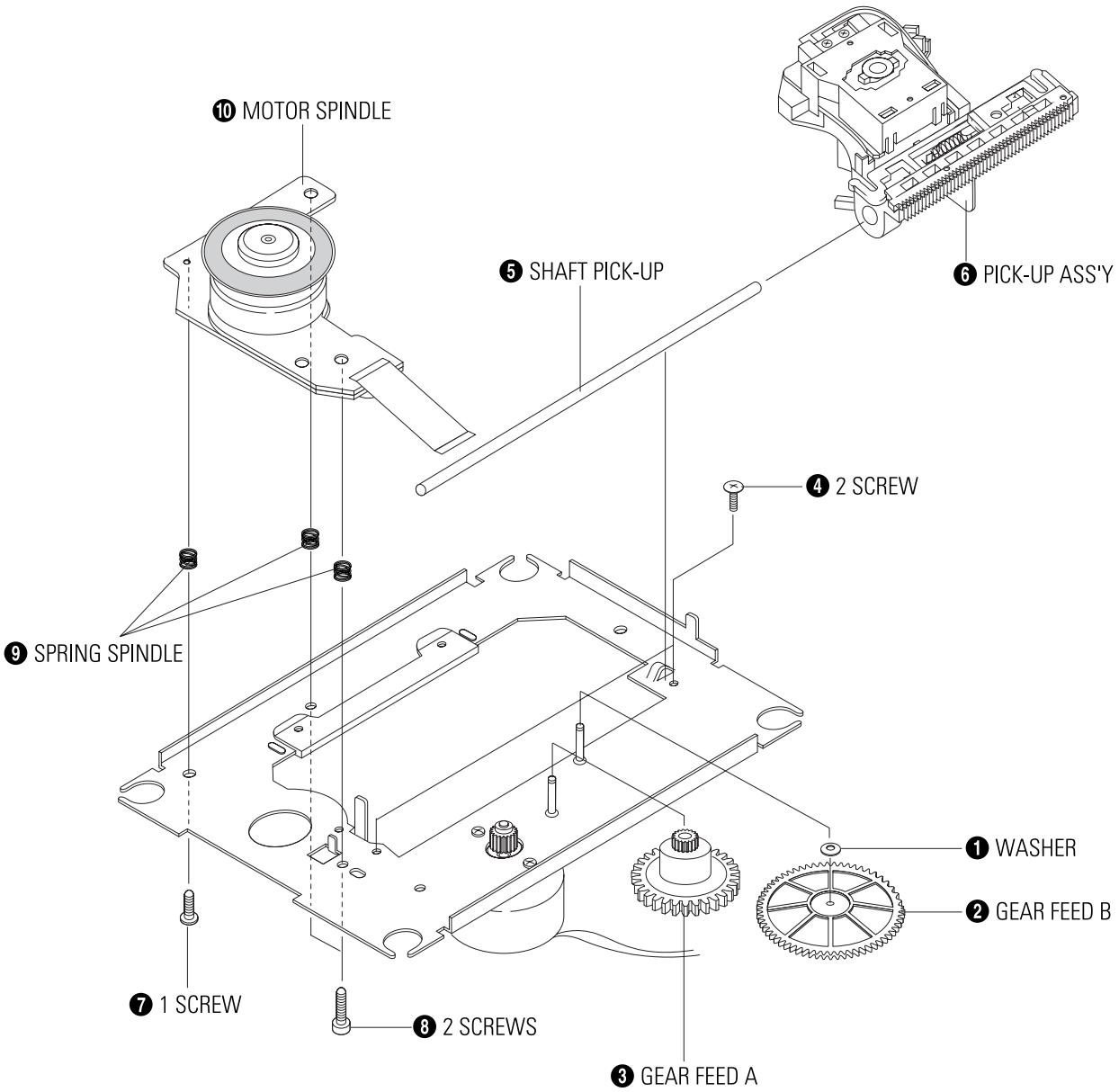


Fig. 3-7-5 Ass'y Brkt Deck Removal

MEMO

4. Alignment and Adjustments (Electrical)

4-1 Preadjustment

4-1-1 Factory Mode

1. Do not attempt these adjustments in the Video Mode.

2. The Factory Mode adjustments are necessary when either the EEPROM (IC901) or the CRT is replaced.

3. Do not tamper with the "Adjustment" screen of the Factory Mode menu. This screen is intended only for factory use.

4-1-2 When EEPROM (IC901) Is Replaced

1. When IC901 is replaced all adjustment data revert to initial values. It is necessary to re-program this data.

2. After IC901 is replaced, warm up the TV for 10 seconds.

4-1-3 When CRT Is Replaced

Make the following adjustments after setting up purity and convergence:

White Balance
Sub-Brightness
Vertical Center
Vertical Size
Horizontal Size

4-2 Factory ("Service") Mode

4-2-1 Procedure for the "Adjustment" Mode

1. This mode uses the standard remote control. The Service Mode is activated by: (1) pressing the "FACTORY" service key on the local-keyboard, or (2) by entering the following remote-control sequence (within 2 seconds):

   STAND-BY →MUTE →1 → 8 →2 →
   POWER ON

2. The "SERVICE (FACTORY)" message will be displayed. The Service Mode has three components: Adjustment, Option Bytes and Reset.

3. Access the Adjustment Mode by pressing the "SELECT" keys (◀ ▶). The adjustment parameters are listed in the accompanying table, and selected by pressing the "SELECT" keys (s,t).

4. Selection sequences for the NTSC systems:

   down or up key:

   CAP>SBT>SCT>SCR>STT>BLR>BLG>RG>
   GG>BG>PWL>SC>VSL>VA>NVS>NHS>
   EW1>EWP>EWUC>EWLC>VSC>HP>HB>
   TC>EW2>CDL>BKS>NDL>WS>VM>AKB>
   CB>BPS>SCL>SVM>SCBT

5. The "SELECT" keys (s,t) increase or decrease the adjustment values, (stored in the non-volatile memory) when Adjustment Mode is cancelled.

4-2-2 Adjust

OSD	Initial	Adjust	Range	Function	OSD	Initial	Adjust	Range	Function
CAP	10	Fix		CAPTION Position	NHS	32		0-63	Horizon Shift
SBT	8		0-23	Sub Brigh	EW1	40		0-63	EW
SCT	16		0-23	Sub Contrast	EWP	32		0-63	EW (Panorama)
SCR	3	Fix	0-13	Sub Color	EWUC	18		0-63	Upper Corner
STT	9	Fix	0-13	Sub Tint	EWLC	18		0-63	Lower Corner
BLR	32		0-63	Low Light R	VSC	32	Fix	0-63	Vertical scroll
BLG	32		0-63	Low Light G	HP	34		0-63	H-Paralleogram
RG	32		0-63	High Light R	HB	32		0-63	Horizontal Bow
GG	32		0-63	High Light G	TC	26		0-63	EW Trapezium
BG	32		0-63	High Light B	EW2	32	Fix	0-63	Panorama EW(Non Vse)
PWL	12	Fix	0-15	Peak white level	CDL	12	Fix	0-15	Cathode Drive Level
SC	18	Fix	0-63	S-Correction	BKS	1	Fix	0-1	Black Stretcher
VSL	32		0-63	Vertical Slope	NDL	5	Fix	0-15	NTSC Delay
VA	18		0-63	Vertical Amplitude	WS	3	Fix	0-3	White Stretch
NVS	32		0-63	Vertical shift	VM	3	Fix	0-3	Amplitude of Scan Velocity
AKB	0	Fix	0-1	AKB on/off (FS Check)	SCL	2	Fix	0-3	Soft Clipping Level
CB	0	Fix	0-1	Chroma Bandpass	SVM	2	Fix	0-3	SVM Out & RGB Out Delay
BPS	1	Fix	0-1	Bypass Delay Lune	SCBT	45	Fix	0-63	Screen Adj Bright Level

4-2-3 AGING Mode(Reference Only)

This pattern is used for pre-heating the CRT during manufacturing-it is accessed in the factory by twice pressing the “FACTORY” key.

Even if the TV power is cut off, the Aging Mode is not cancelled.
The “AGING” marking is displayed on the screen.
The AGING mode is cancelled by epresing the “FACTORY” key.

4-2-4 Option

NO	OSD	Adjust	Range
1	VIDEO MUTE	2 (X100mS)	off/x1/x2/x3...
2	ZOOM	NOR/ZOOM/16:9	NORMAL,NOR/ZOOM,NOR/ZOOM/16:9
3	AUTO POWER	ON	ON/OFF
4	AUDIO MUTE	ON	ON/OFF
5	LANGUAGE	English	English/Espanol/Franch
6	2H comb	ON	(21"/29" option)
7	BLUE SCREEN	ON	ON/OFF
8	V-CHIP	ON	ON/OFF
9	ANTENNA	IRC	IRC/AFN
10	S-VIDEO	OFF	ON/OFF
11	VCR HEAD	HIFI	HIFI/4HD/2HD

4-2-5 Reset

The Reset Mode is used during factorying inspection
Function Reset : After Factorying Reset, the following items itens revert to their initial values.

1. Volume 10
2. Channel ANT 3
3. P- STD MEMORY
4. Auto Power ON
5. NR OFF

Cautim : When the EEPROM is replaced ; all items revert to their initial values.

4-2-6 VCR Test Mode (Reference Only)

The VCR Test Mode is used during factorying inspection or when exchange VCR deck.

* Entering : STBY Mode -> factory key -> Power key (light up all LED)
  Function : “9” -> Head Switch Auto Adjustment.
  “5” -> Env Center point Auto Adjustment.
  “TRK + “ -> Env max point Adjustment.
  “TRK - “ -> Env min point Adjustment.

* Cancellation : pull out power cord.

4-3 Other Adjustments

4-3-1 General

1. Usually, a color TV needs only slight touch-up adjustment upon installation. Check the basic characteristics such as height, horizontal and vertical sync and focus.

2. The picture should have good black and white details. There should be no objectionable color shading; if color shading is present, perform the purity and convergence adjustments described below.

3. Use the specified test equipment or its equivalent.

4. Correct impedance matching is essential.

5. Avoid overload. Excessive signal from a sweep generator might overload the front-end of the TV. When inserting signal markers, do not allow the marker generator to distort test results.

6. Connect the TV only to an AC power source with voltage and frequency as specified on the backcover nameplate.

7. Do not attempt to connect or disconnect any wires while the TV is turned on. Make sure that the power cord is disconnected before replacing any parts.

8. To protect against shock hazard, use an isolation transformer.

4-3-2 Automatic Degaussing

A degaussing coil is mounted around the picture tube, so that external degaussing after moving the TV should be unnecessary. But the receiver must be properly degaussed upon installation.

The degaussing coil operates for about 1 second after the power is switched ON. If the set has been moved or turned in a different direction, disconnect its AC power for at least 10 minutes.

If the chassis or parts of the cabinet become magnetized, poor color purity will result. If this happens, use an external degaussing coil. Slowly move the degaussing coil around the faceplate of the picture tube and the sides and front of the receiver. Slowly withdraw the coil to a distance of about 6 feet before removing power.

4-3-3 High Voltage Check

CAUTION: There is no high voltage adjustment on this chassis. The B+ power supply must be set to +130 volts (Full color bar input and normal picture level).

1. Connect a digital voltmeter to the second anode of the picture tube.

2. Turn on the TV. Set the Brightness and Contrast controls to minimum (zero beam current).

3. The high voltage should not exceed 30KV.

4. Adjust the Brightness and contrast controls to both extremes. Ensure that the high voltage does not exceed 30KV under any conditions.

4-3-4 FOCUS Adjustment

1. Input a CROSS hatch signal.
2. Adjust the tuning Focus VR for the clearest picture.
3. Adjust the FOCUS control for well defined scanning lines in the center area of the screen.

4-3-5 Screen Adjustment

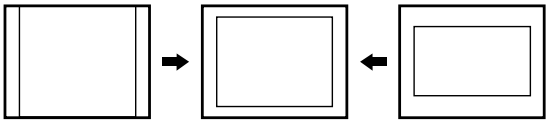
1. Turn to the White Signal.
2. Adjust the VR screen for a normal picture is (no blooming or flyback line).
   Input the Factory -> G2-Adjust choice -> Screen VR tuning OK Mode

4-3-6 Purity Adjustment

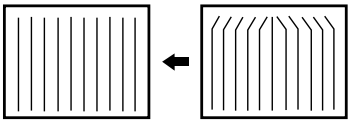
1. Warm up the receiver for at least 20 minutes.
2. Plug in the CRT deflection yoke and tighten the clamp screw.
3. Plug the convergence yoke into the CRT and set in as shown in Fig. 5-1.
4. Input a black and white signal.
5. Fully demagnetize the receive by applying an external degaussing coil.
6. Turn the CONTRAST and BRIGHTNESS controls to maximum.
7. Loosen the clamp screw holding the yoke. Slide the yoke backward or forward to provide vertical green belt. (Fig. 5-2).
8. Tighten the convergence yoke.
9. Slowly move the deflection yoke forward, and adjust for the best overall green screen.
10. Temporarily tighten the deflection yoke.
11. Produce blue and red rasters by adjusting the low-light controls. Check for good purity in each field.
12. Tighten the deflection yoke.

4-3-7 I^{2}C BUS GEOMETRIC Adjust

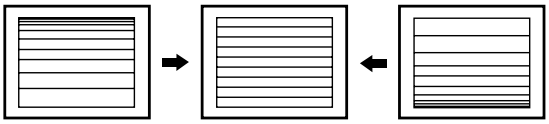
1. V SIZE(VA)



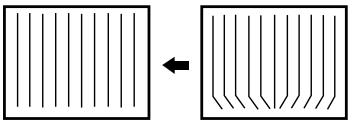
2. UP CPIN (EWUC) : 29" Only



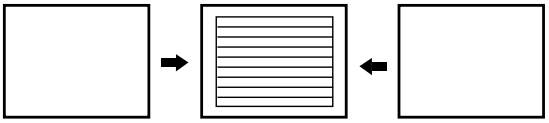
3. V LINEARITY (VSL)



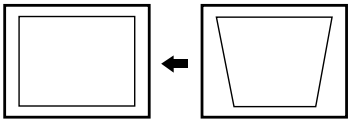
4. LO CPIN (EWLC) : 29" Only



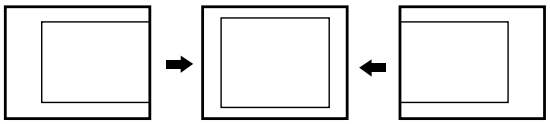
5. V S CORRECTION (SC)



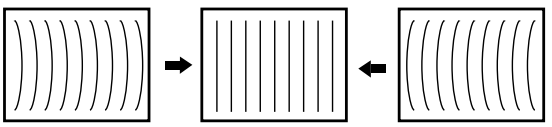
6. TILT (TC)



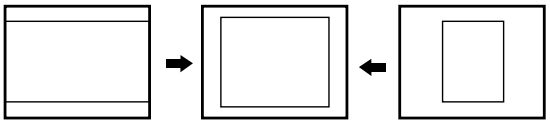
7. H POSITION (NHS)



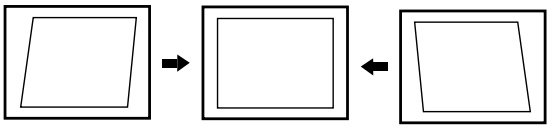
8. AFC BOW (HB)



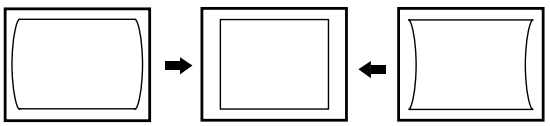
9. H SIZE(EWI)



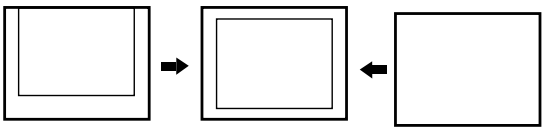
10. AFC ANGLE (HP)



11. PIN COMP (EWP)



12. V POSITION (NVS)



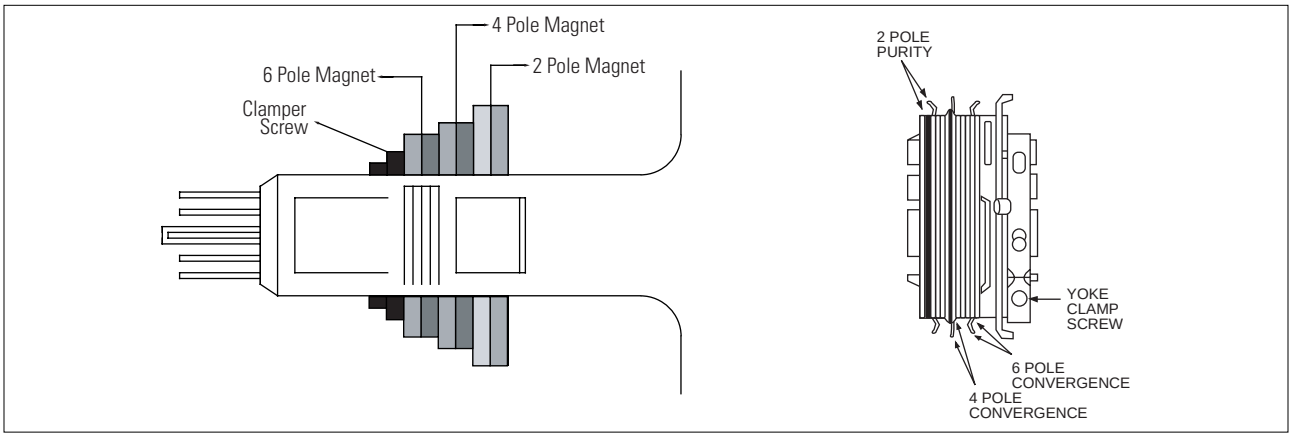


Fig. 5 -1 Convergence Magnet Assembly

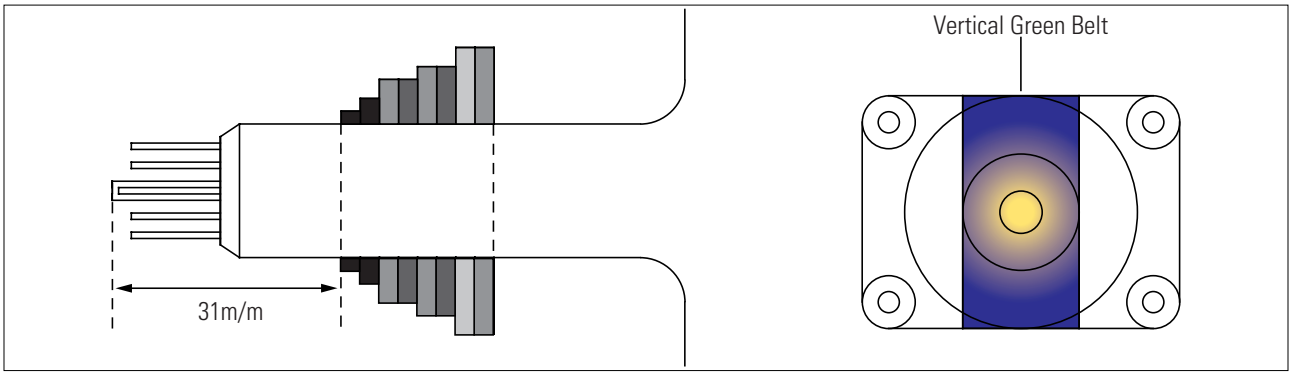


Fig. 5-2 Center Convergence Adjustment

4-3-8 White Balance Adjustment

4-4-7 (A) HIGH-LIGHT ADJUSTMENT

1. Input either a Lion Head or a “pure white” pattern.
2. Warm up the TV for 30 minutes.
3. Check the data in the Service Mode
4. Adjust RG, BG in the Factory Mode.

4-4-7 (B) LOW-LIGHT ADJUSTMENT

1. Automatically accomplished during the high-light adjustment.

4-3-8 Center Convergence Adjustment

1. Warm up the receiver for at least 20 minutes.

2. Adjust the two tabs of the 4 pole magnets to change the angle between them. Superimpose the red and blue vertical lines in the center area of the screen.

3. Adjust the Brightness and Contrast controls for a well defined picture.

4. Adjust the two-tab pairs of the 4 pole magnets, and change the angle between them. Superimpose the red and the blue vertical lines in the center area of the screen.

5. Turn the both tabs at the same time, keeping the angle constant, and superimpose the red and blue horizontal line in the center of the screen.

6. Adjust the two-tab pairs of the 6-pole magnets to superimpose the red and blue line onto the green. (Changing the angle affects the vertical lines, and rotating both magnets affects the horizontal lines.)

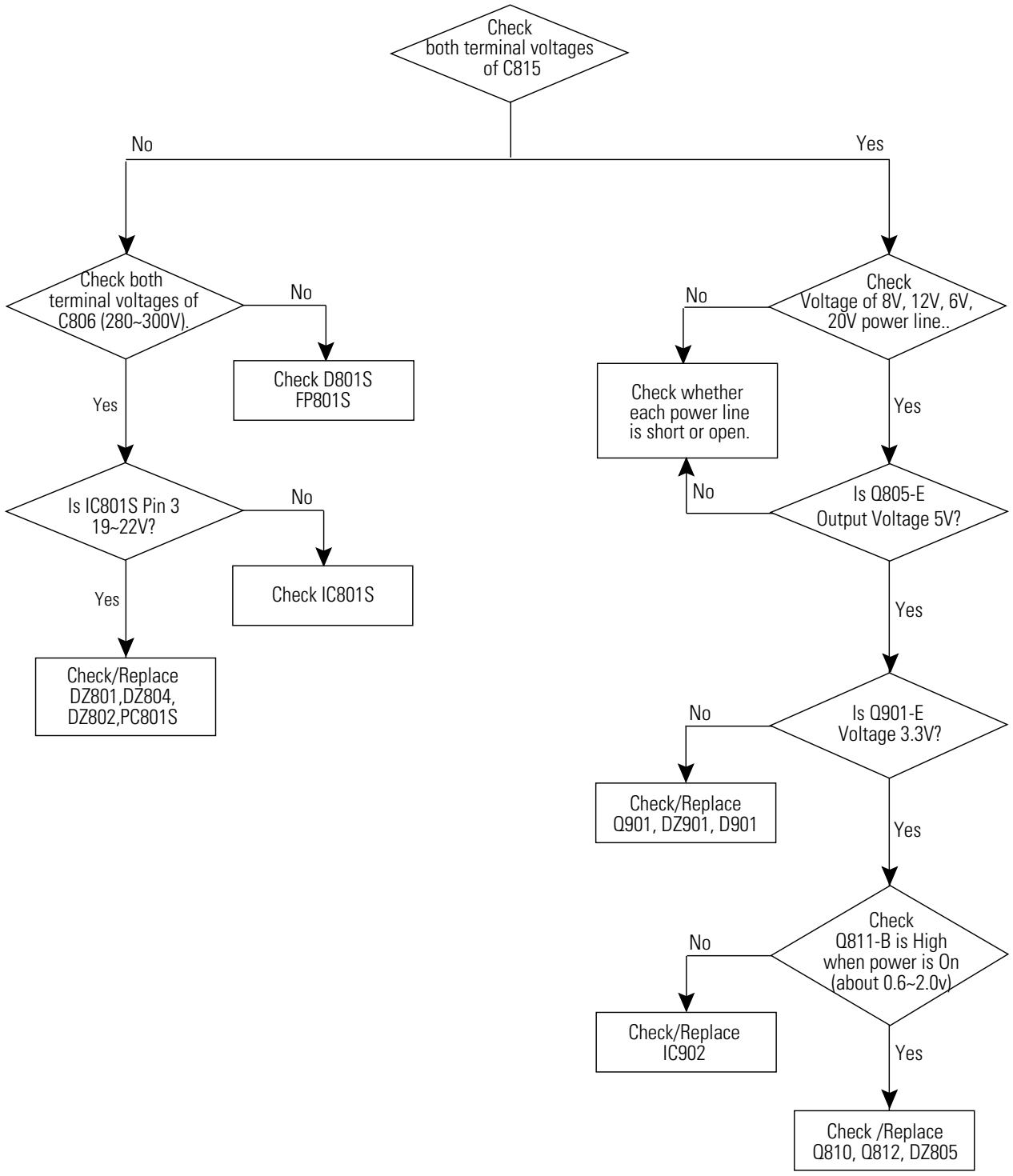
7. Repeat adjustments 2~6, if necessary.

8. Since the 4-pole magnets and 6-pole magnets interact, the dot movement is complex (Fig. 5-3).

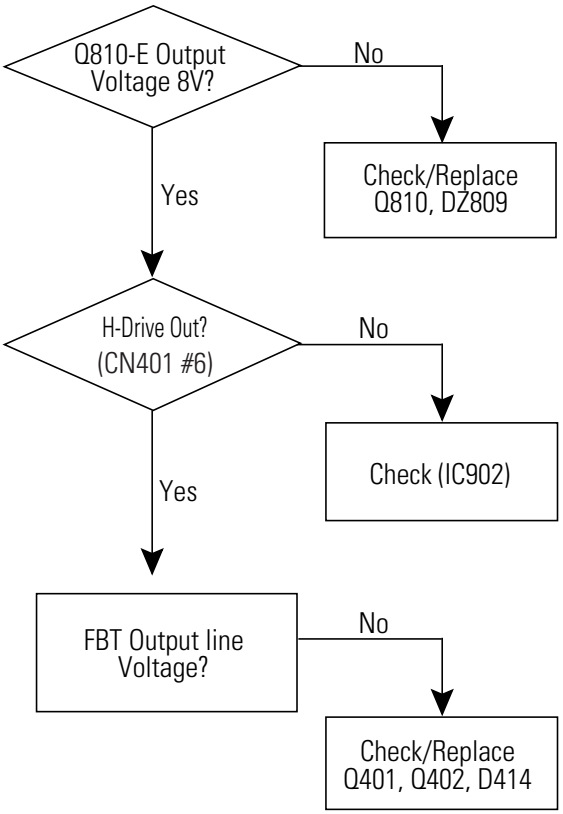
Fig 5-3 Center Convergence Adjustment

5. Troubleshooting

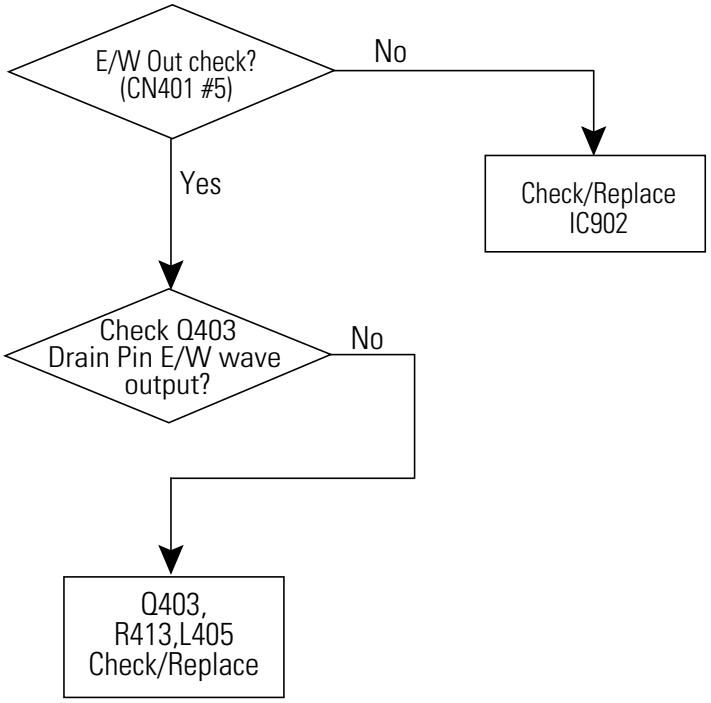
5-1 No Power (No Picture on)



5-2 No Power (No Picture)

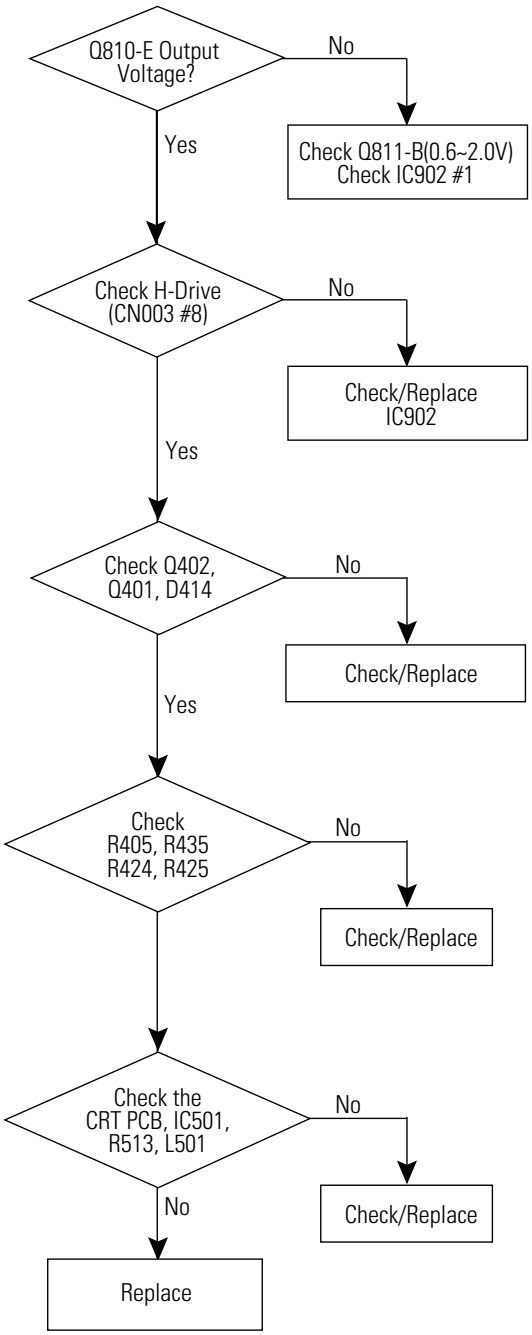


5-3 E/W Correction Not

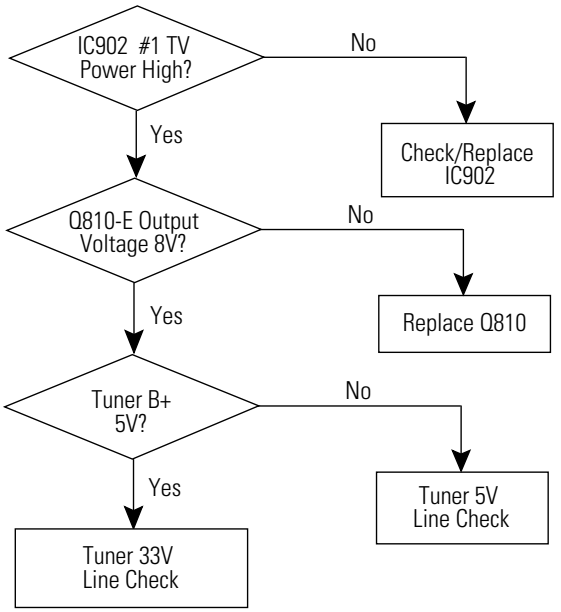


5-4 No Raster / No RF Signal

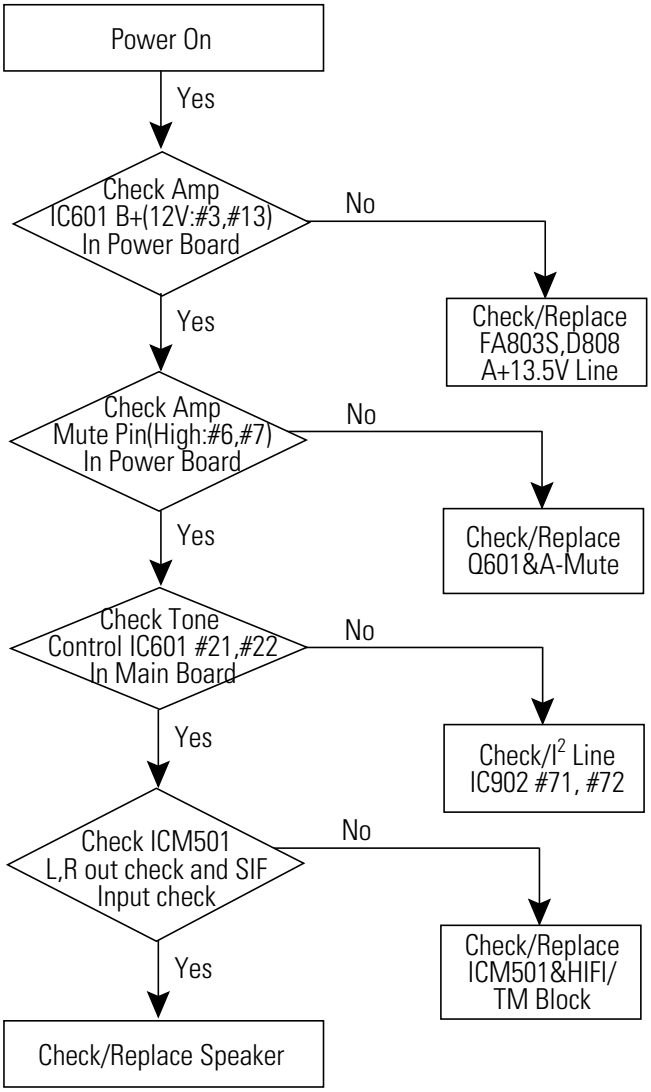
* No Raster



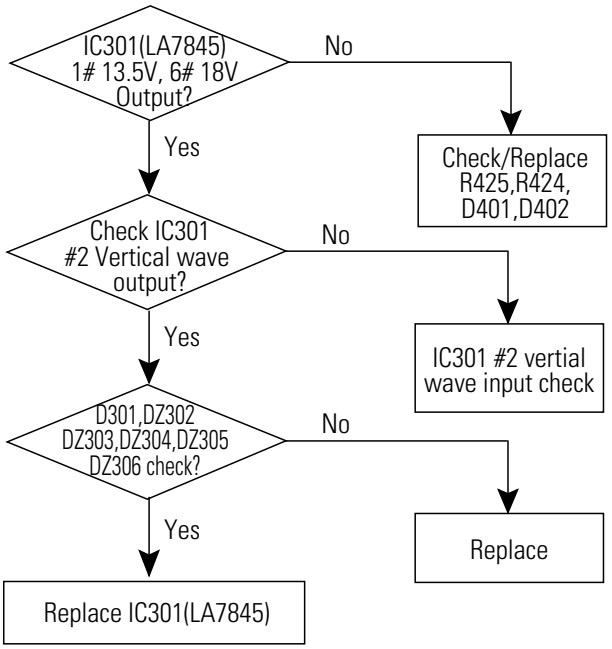
* No signal



5-5 No Sound


Power On
Yes
Check Amp
IC601 B+(12V:#3,#13)
In Power Board
No
Check/Replace
FA803S,D808
A+13.5V Line
Yes
Check Amp
Mute Pin(High:#6,#7)
In Power Board
No
Check/Replace
Q601&A-Mute
Yes
Check Tone
Control IC601 #21,#22
In Main Board
No
Check/I2 Line
IC902 #71, #72
Yes
Check ICM501
L,R out check and SIF
Input check
No
Check/Replace
ICM501&HIFI/
TM Block
Yes
Check/Replace Speaker

5-6 Horizotal Line



5-7 No Picture (Sound OK)

1 Check the Brightness, Contrast and Color adjustments

2. Check: AV Picture

3. See Signal Block Diagram

5-8 No Sound (Picture OK)

1. Check the Volume adjustment level.

2. Check AV Video

3. See Signal Block Diagram

5-9 RF Weak Signal (Playback, AV Mode OK)

1. Check Tuner (TU01S) B+. Check: 8V
   33V (DZ201). Check 5V

5-10 No Vertical SCAN

1. Check R425, D401
2. Check IC301, #2
3. Check Chroma module Vertical-out Line
4. Check DY Connector

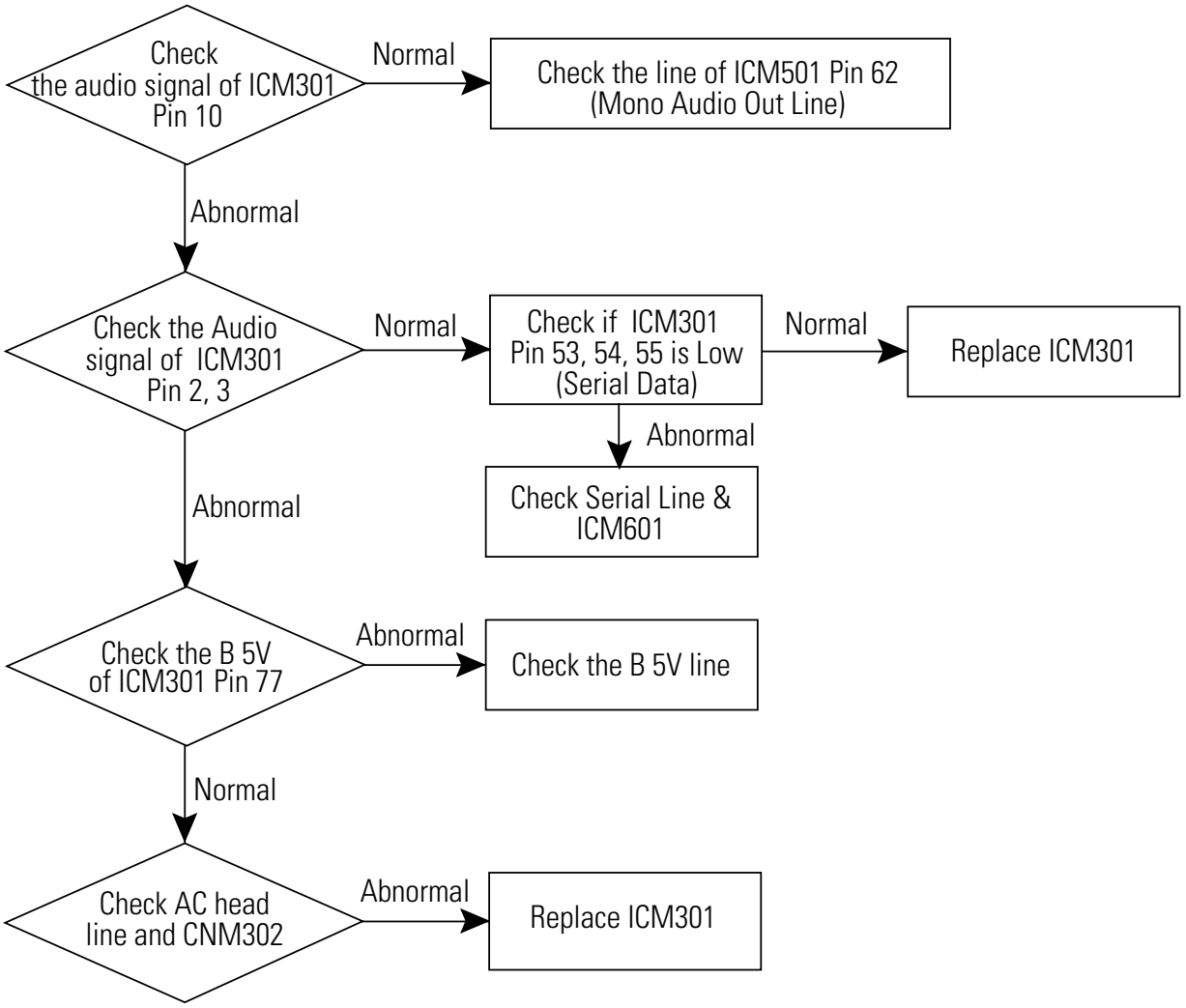
5-11 Horizontal Size

1. Check C411, R421, Q403, R405

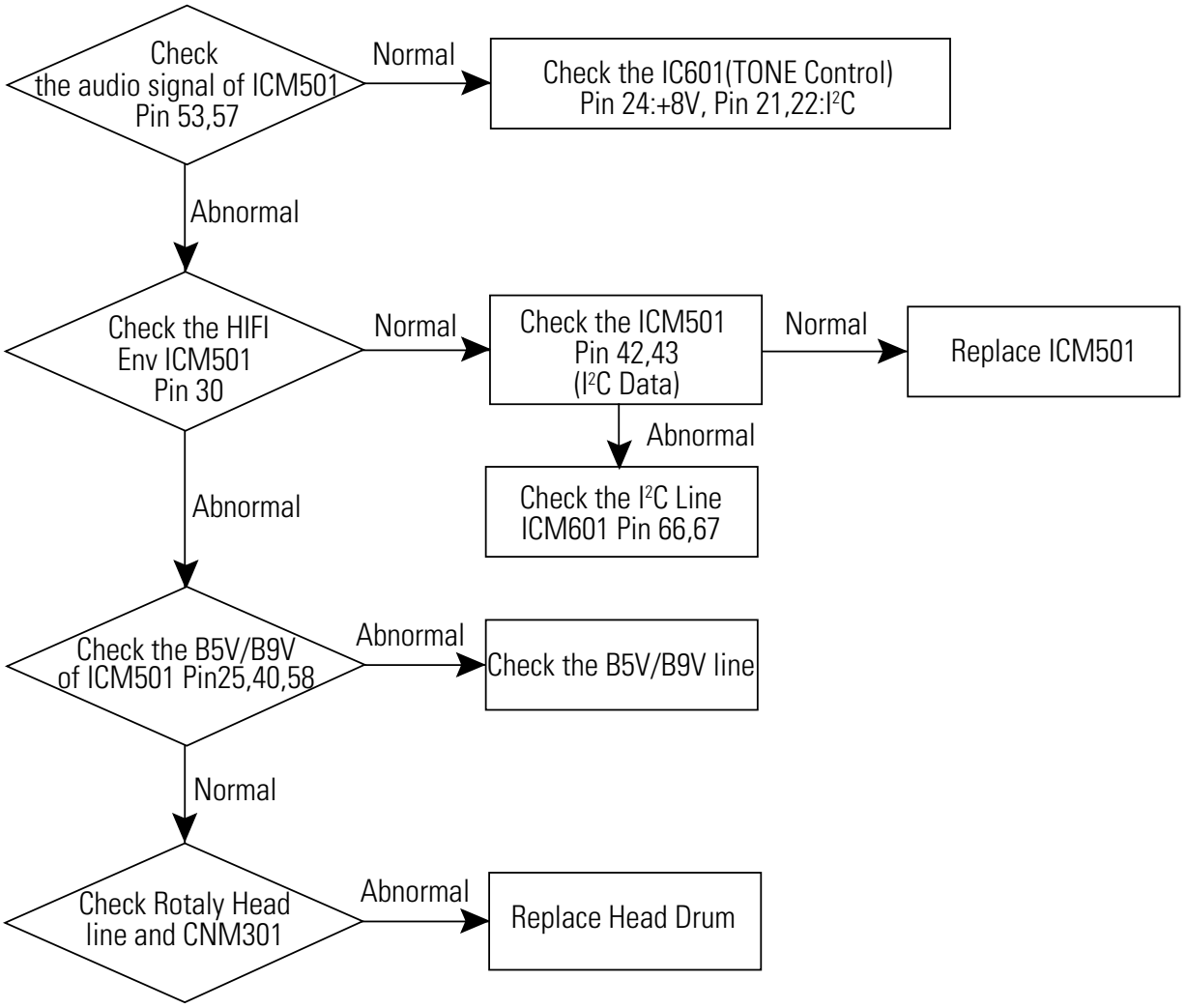
5-12 On-Screen Display Missing

1. Check IC902 #56, #57, #58

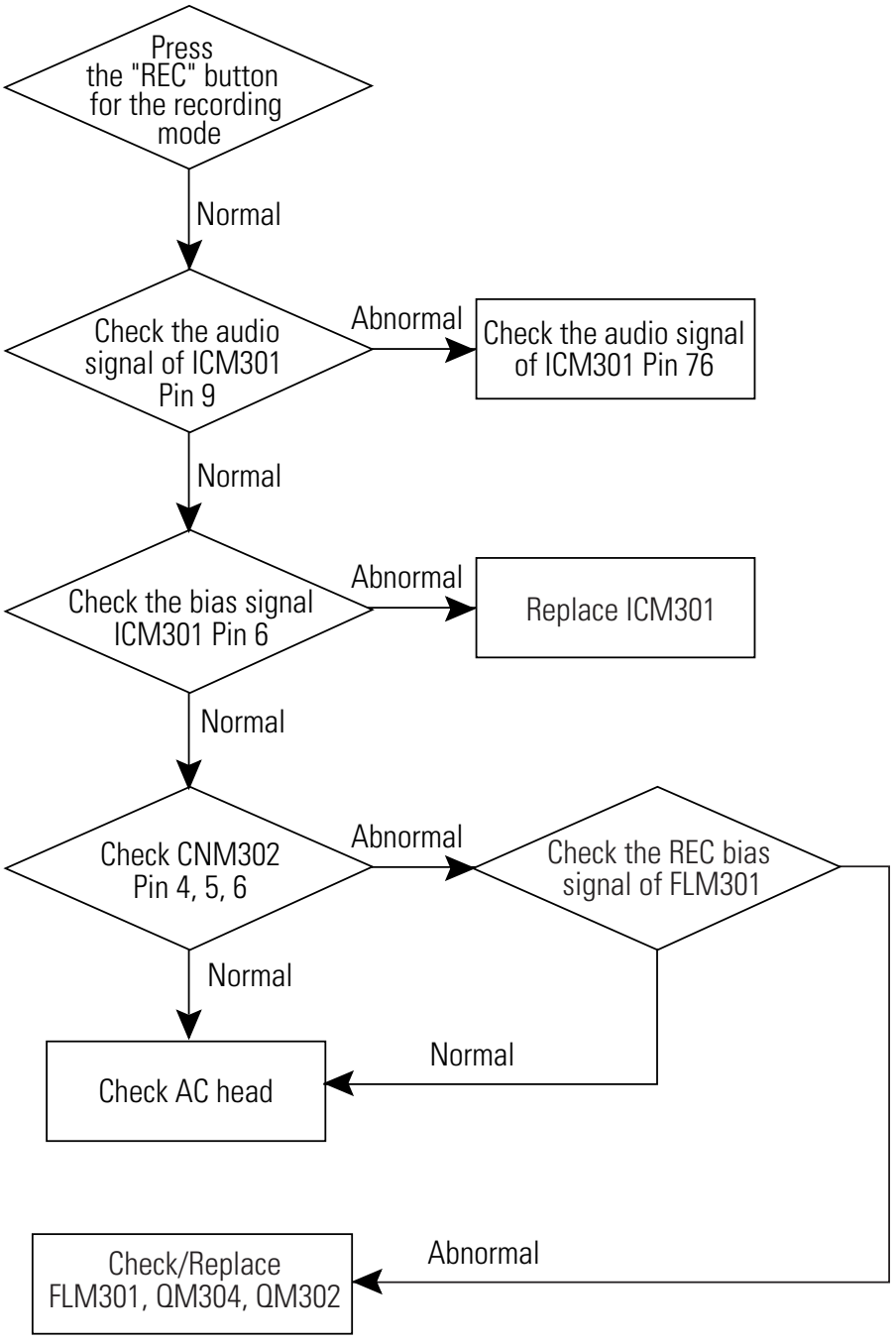
5-13 No Audio During Playback (Mono Audio)



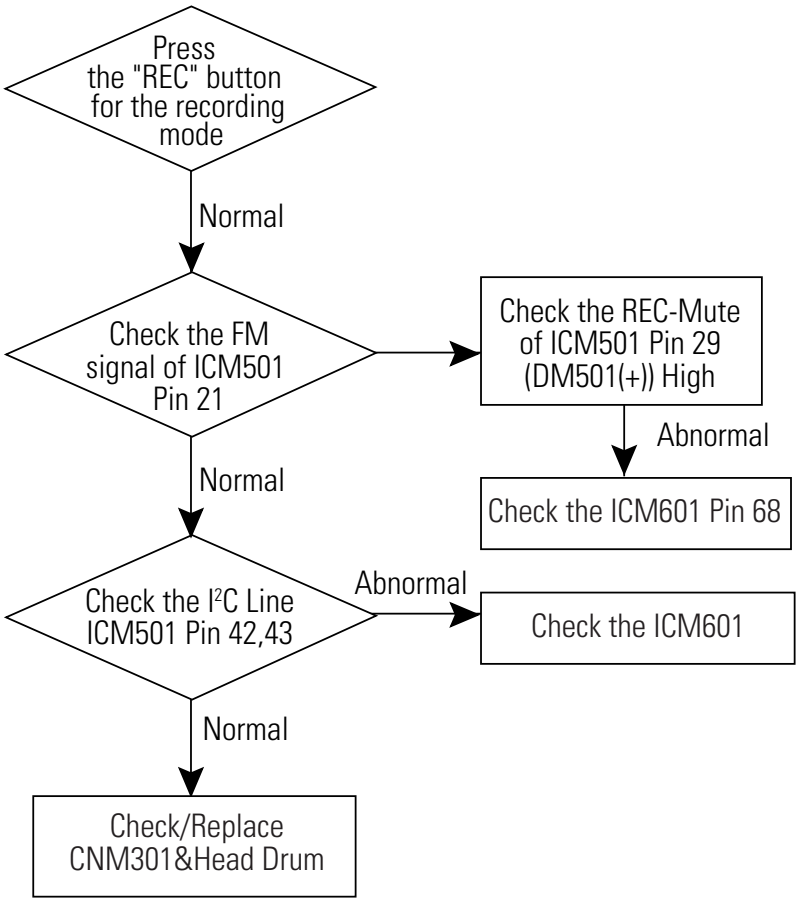
5-14 No Audio During Playback (HIFI)



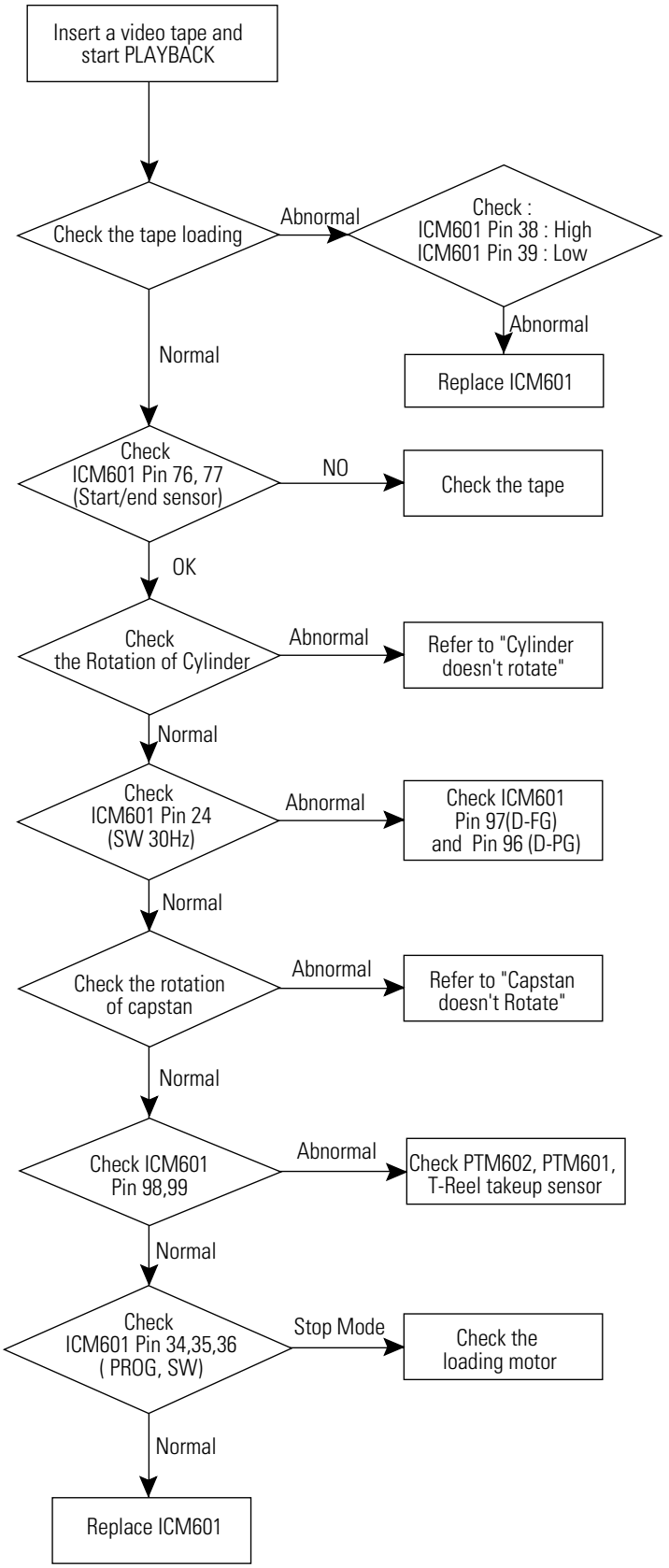
5-15 No Audio During Record (Mono Audio)



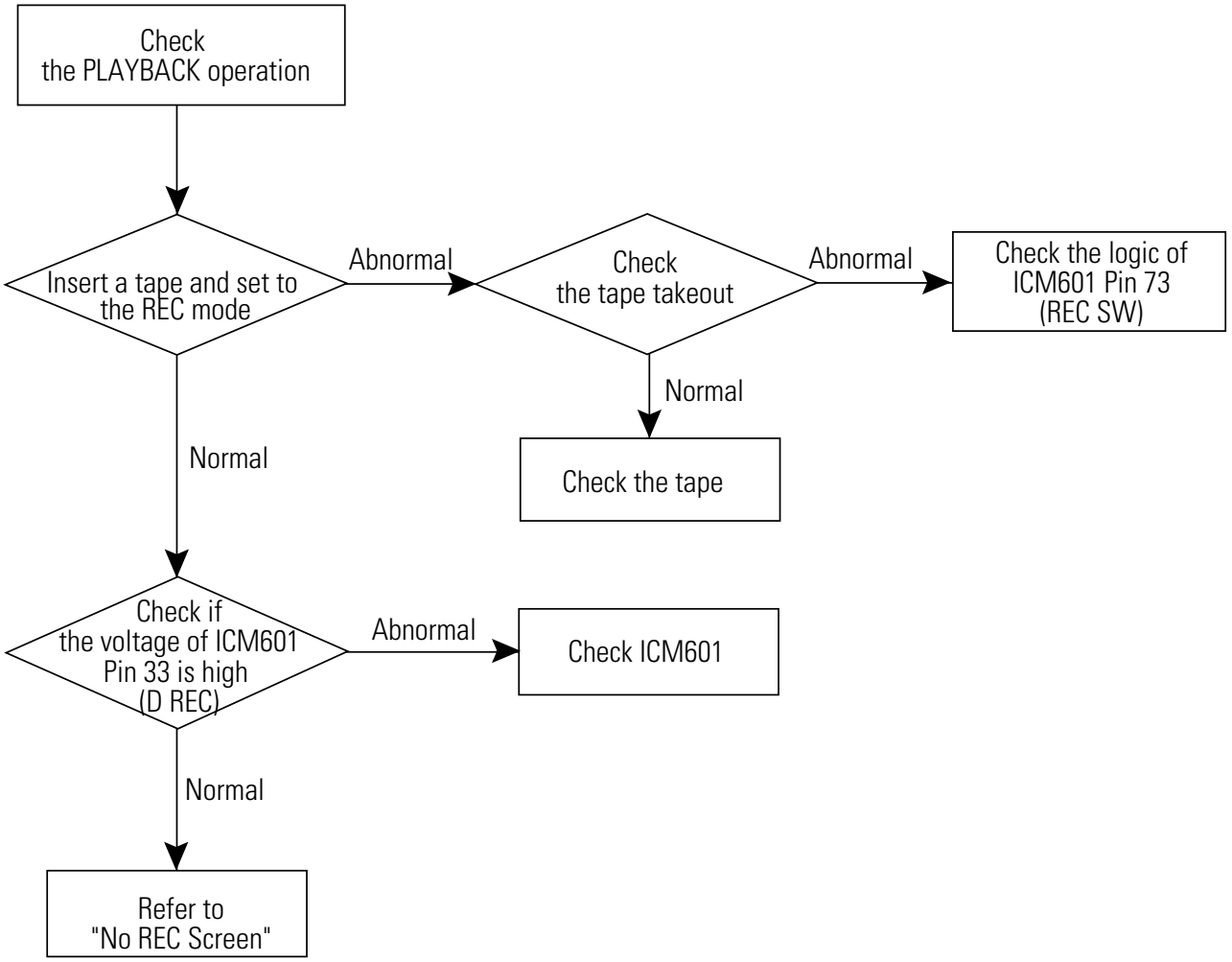
5-16 No Audio During Record (HIFI Audio)



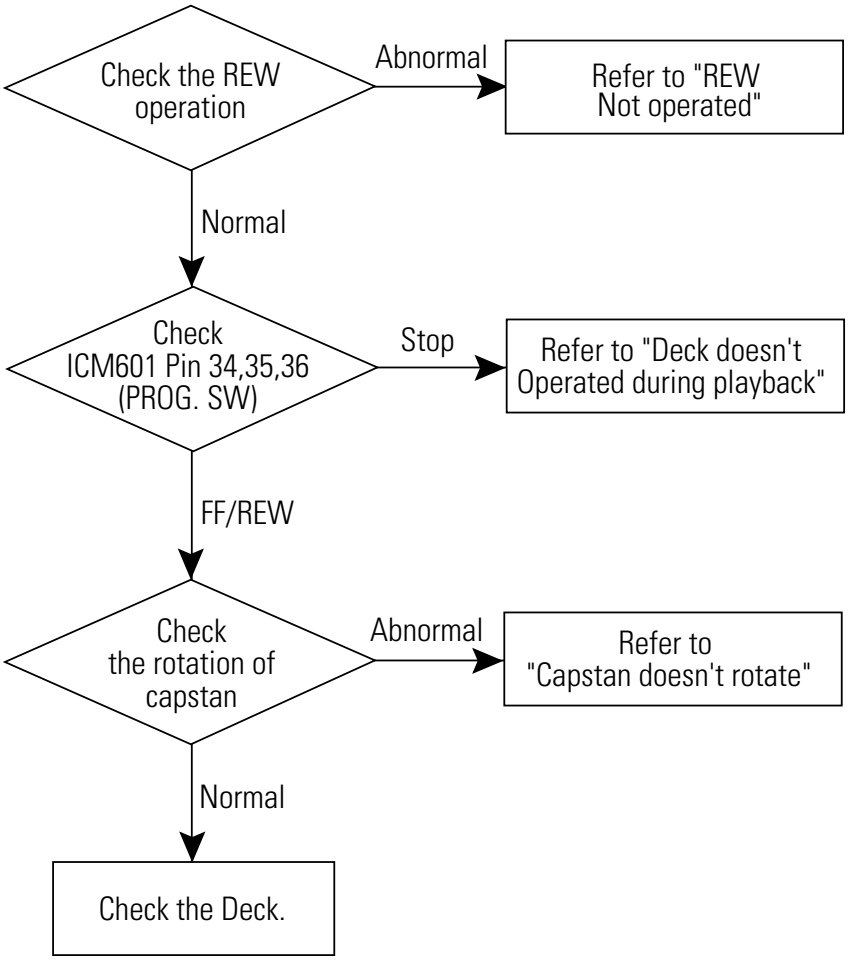
5-17 No Playback



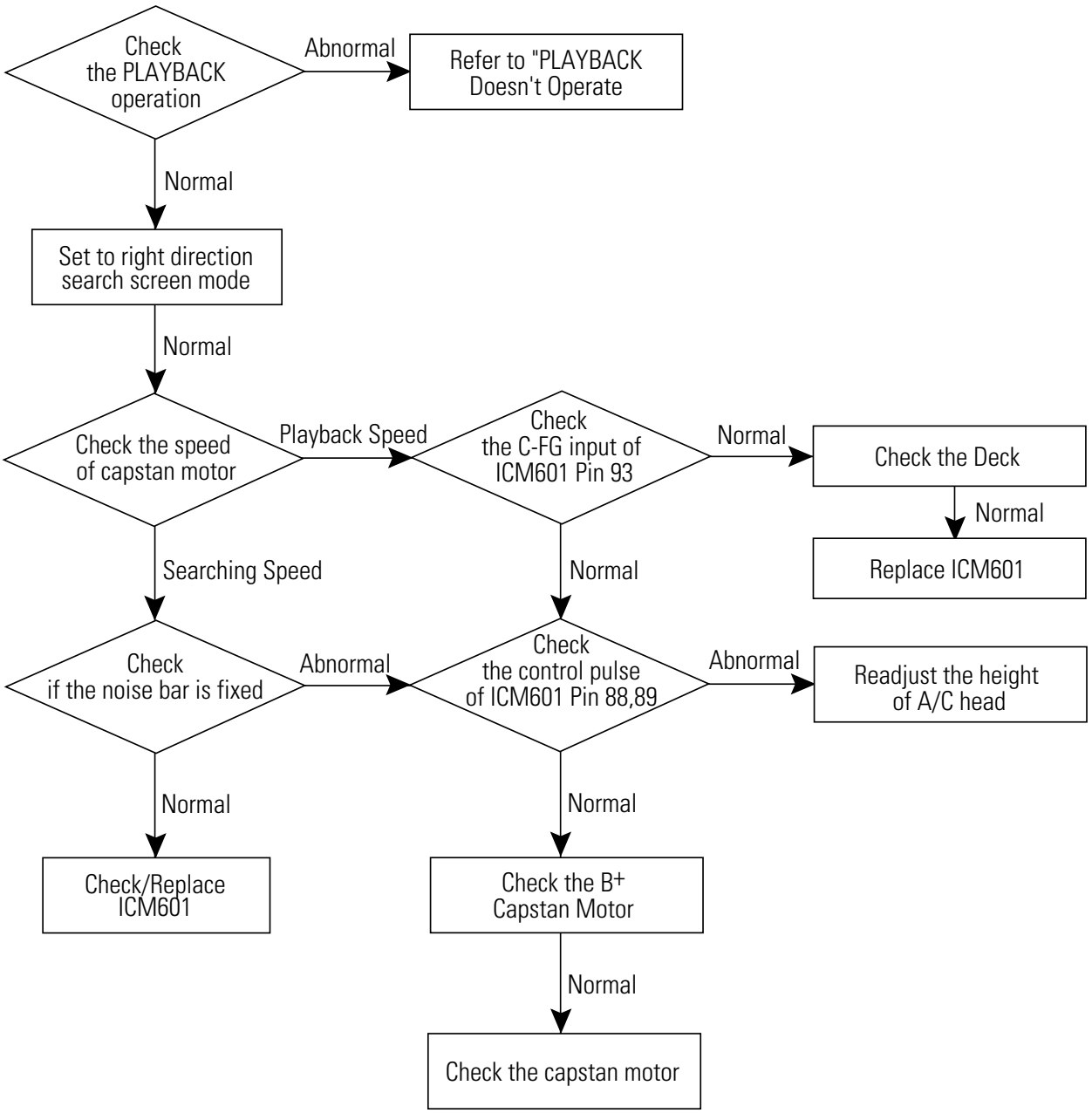
5-18 REC Doesn't Operate



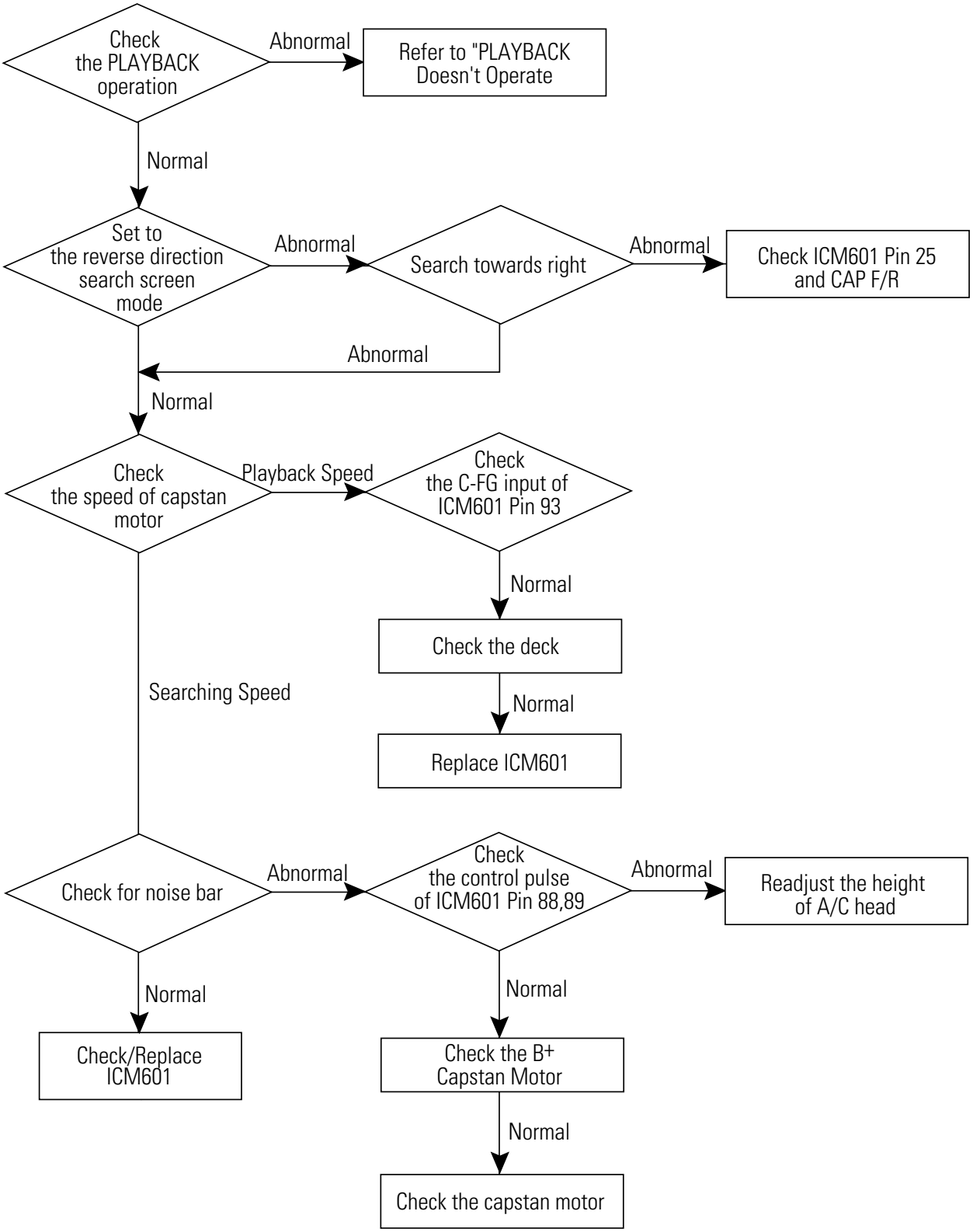
5-19 FF/ “REW” Doesn’t Operate



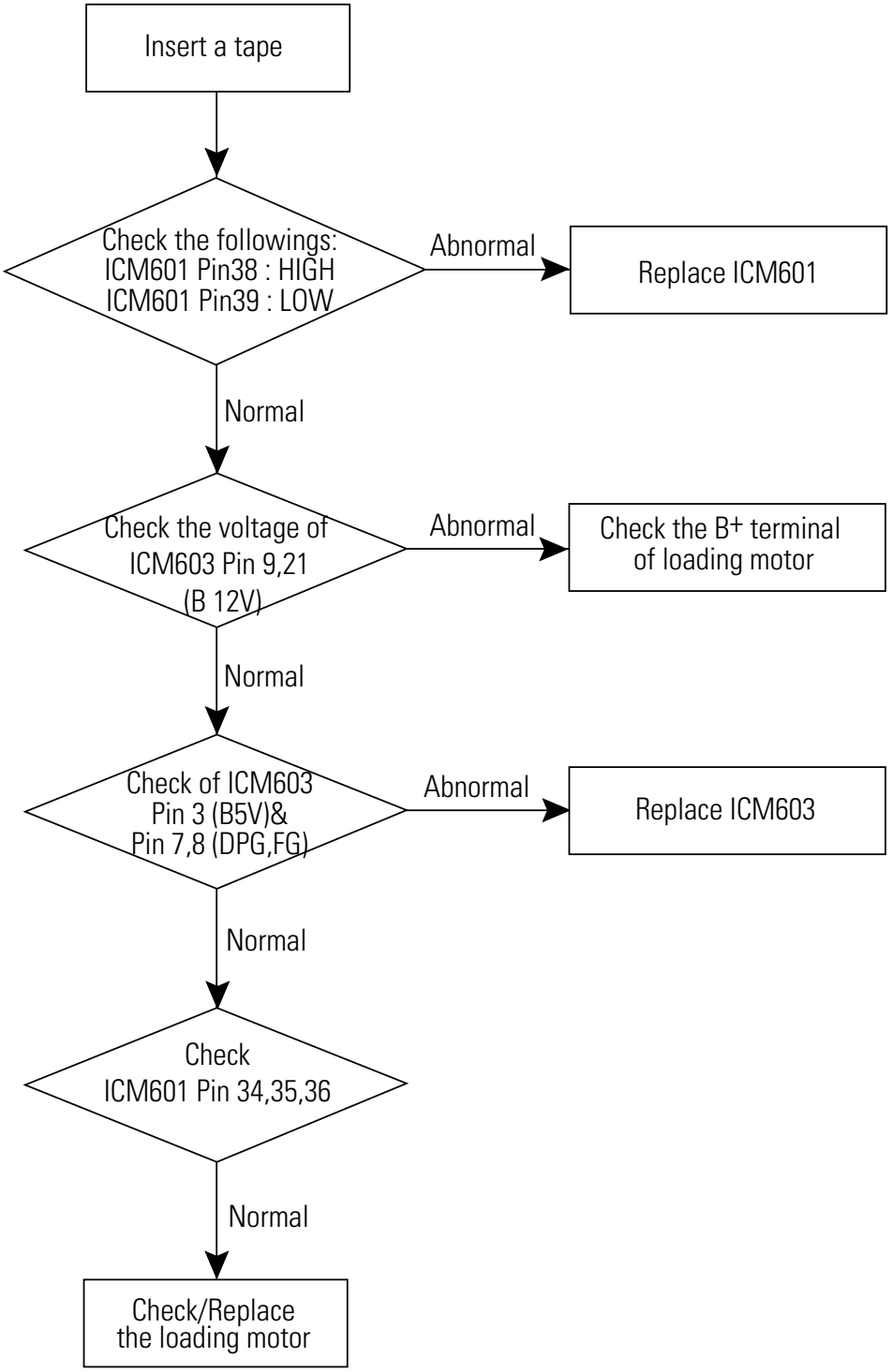
5-20 “Forward Direction Search



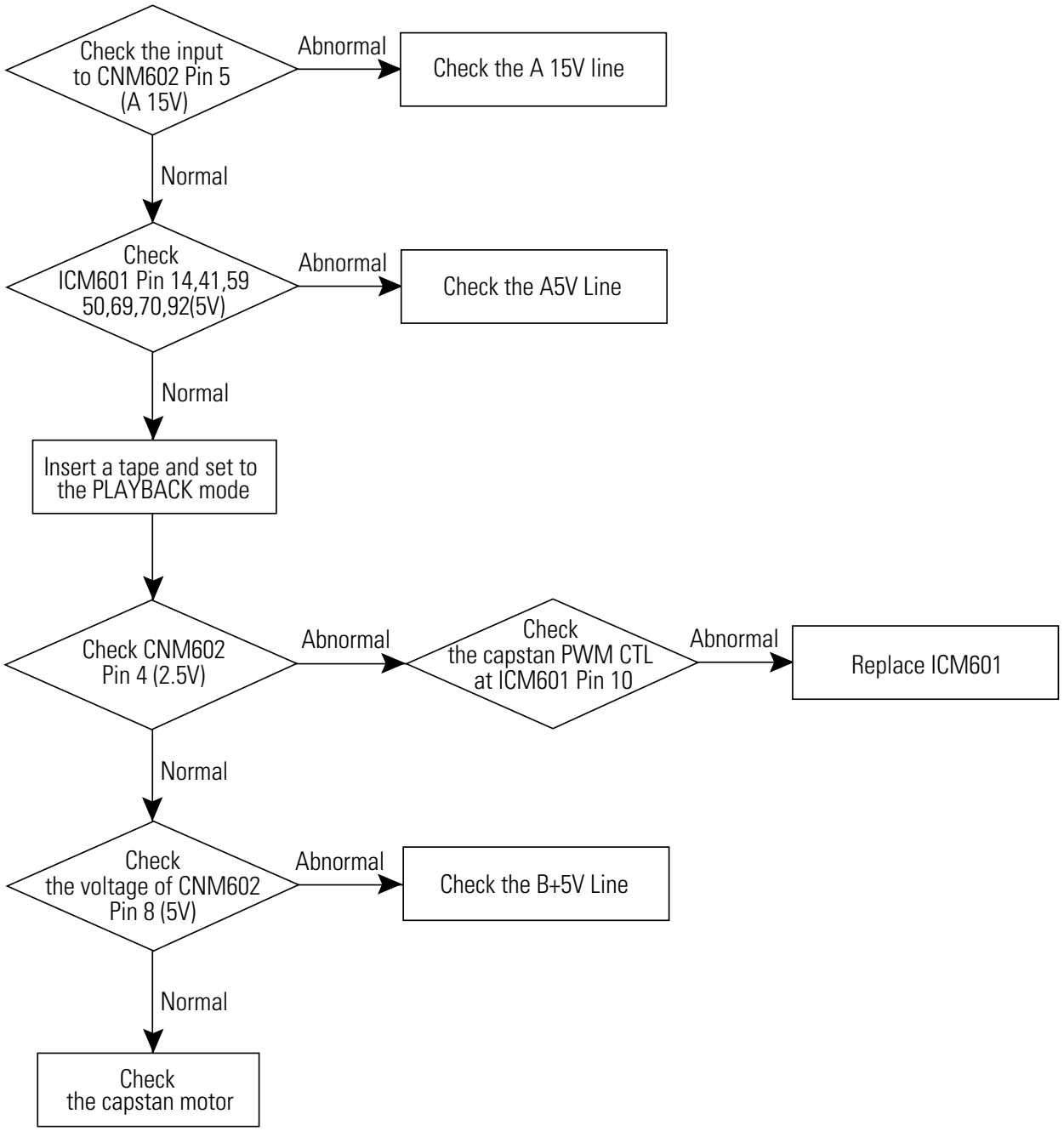
5-21 “Reverse Direction Search Screen “Doesn’t Operateß



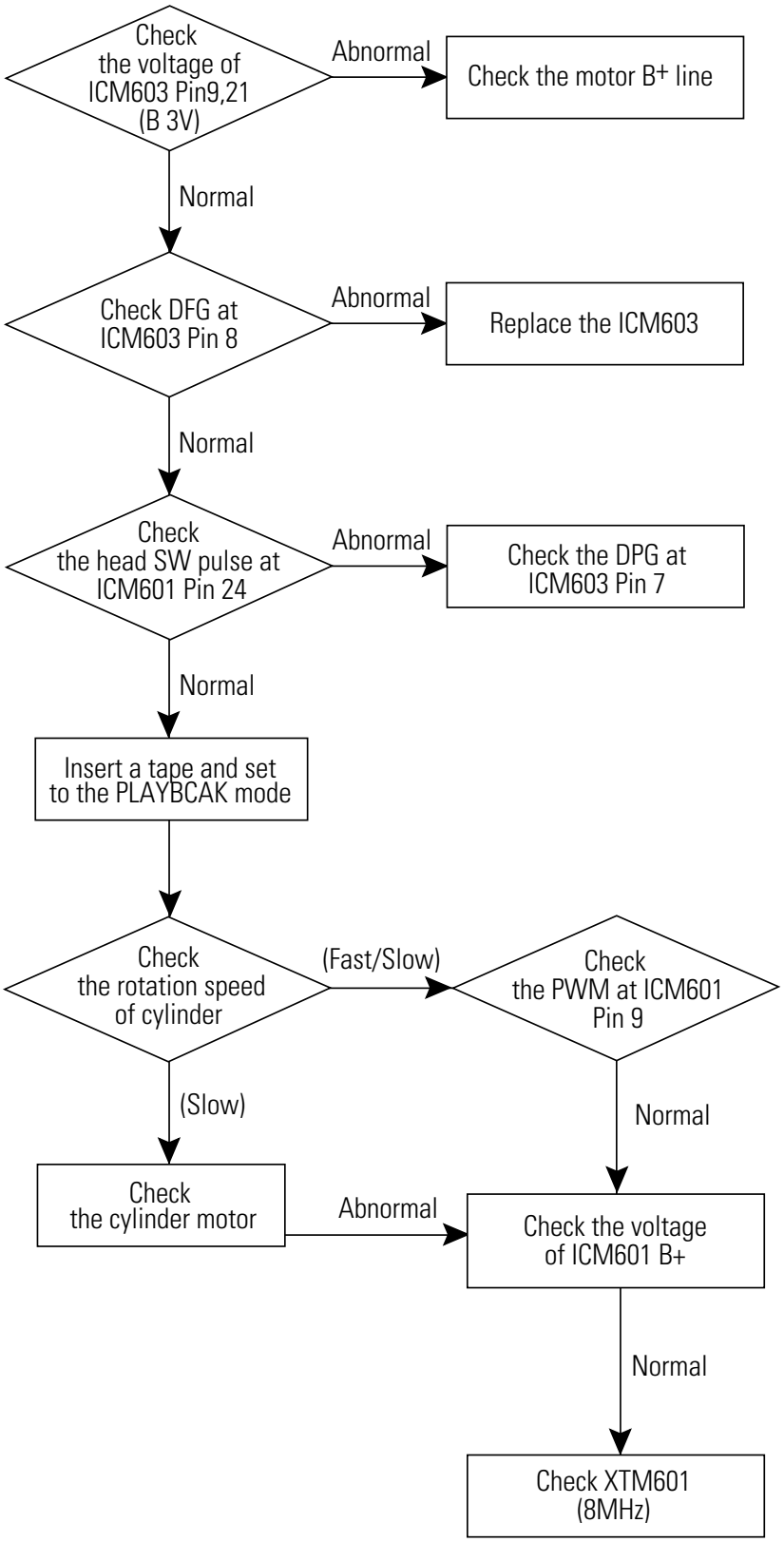
5-22 Tape Doesn't Load



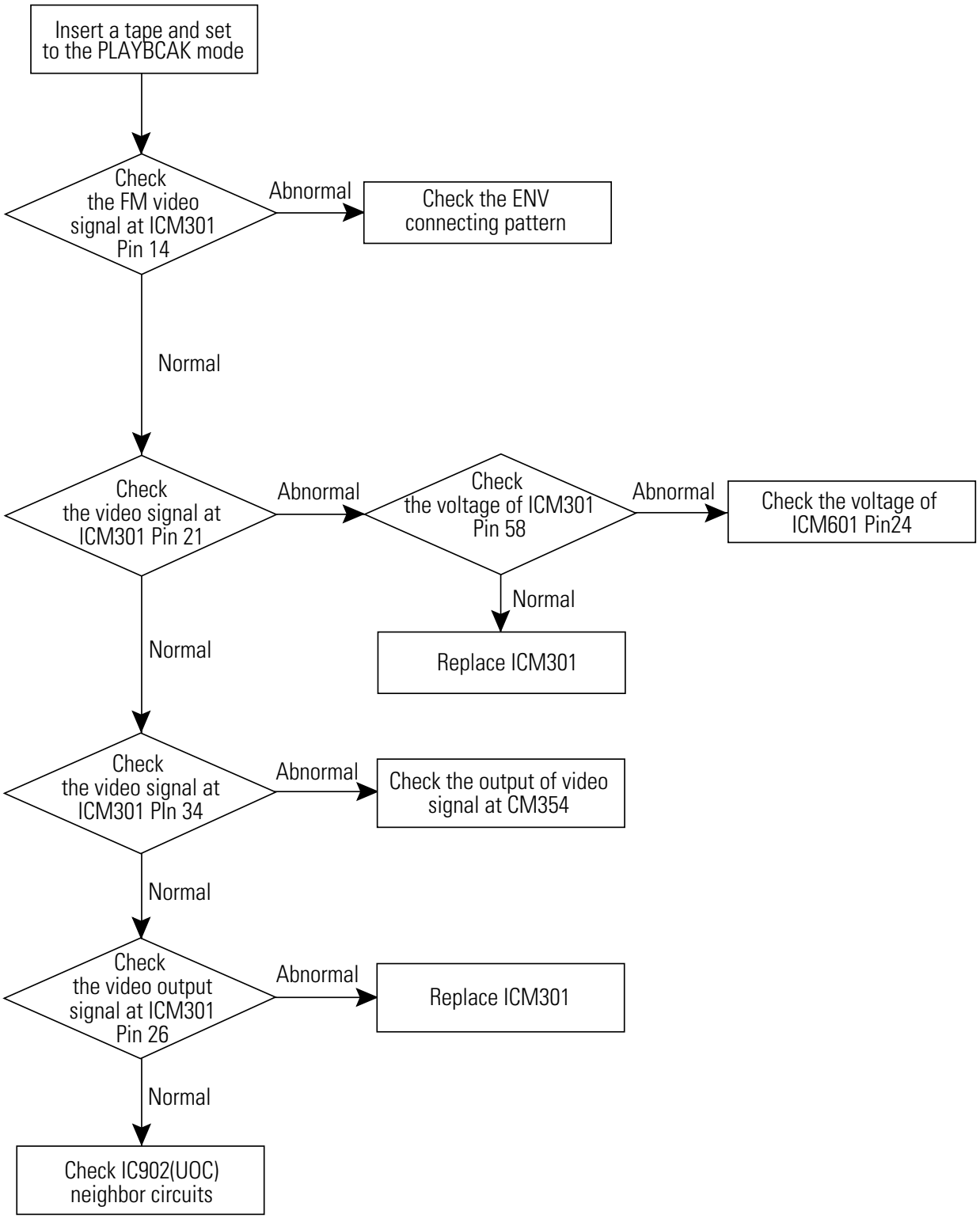
5-23 Capstan Doesn't Rotate



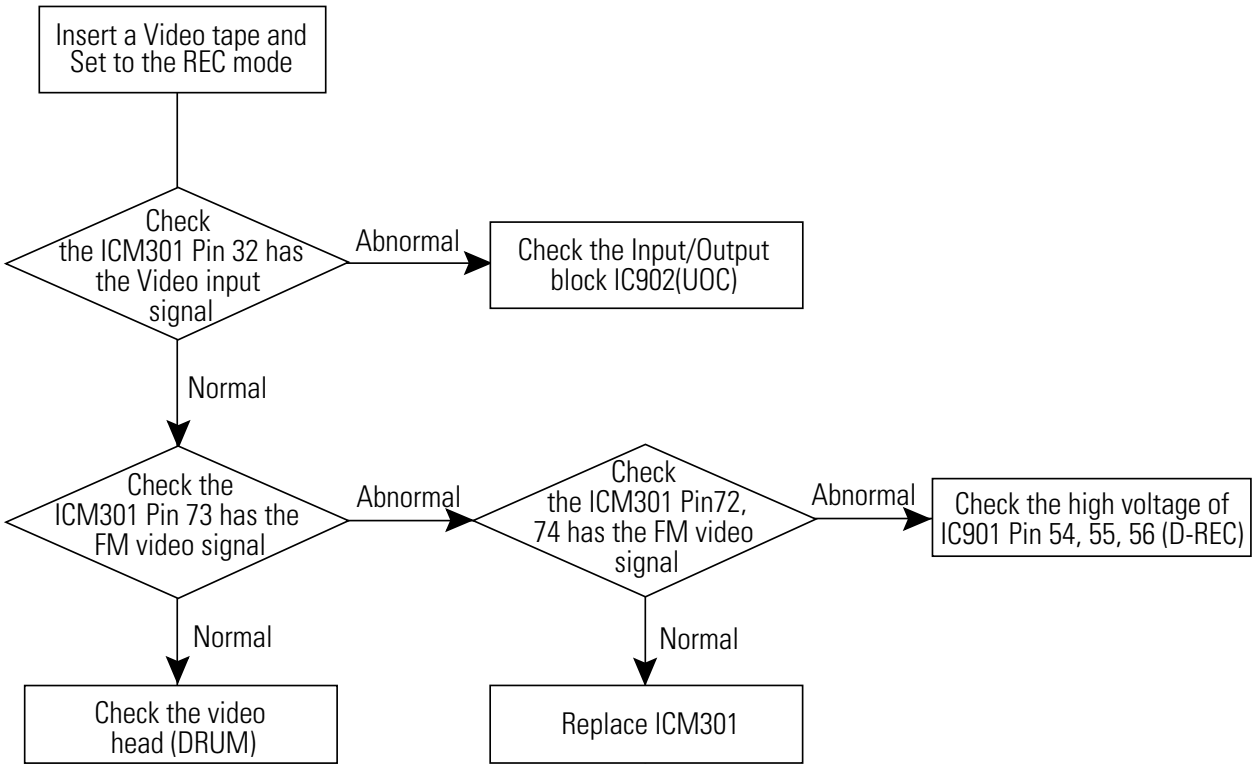
5-24 Cylinder Doesn't Rotate



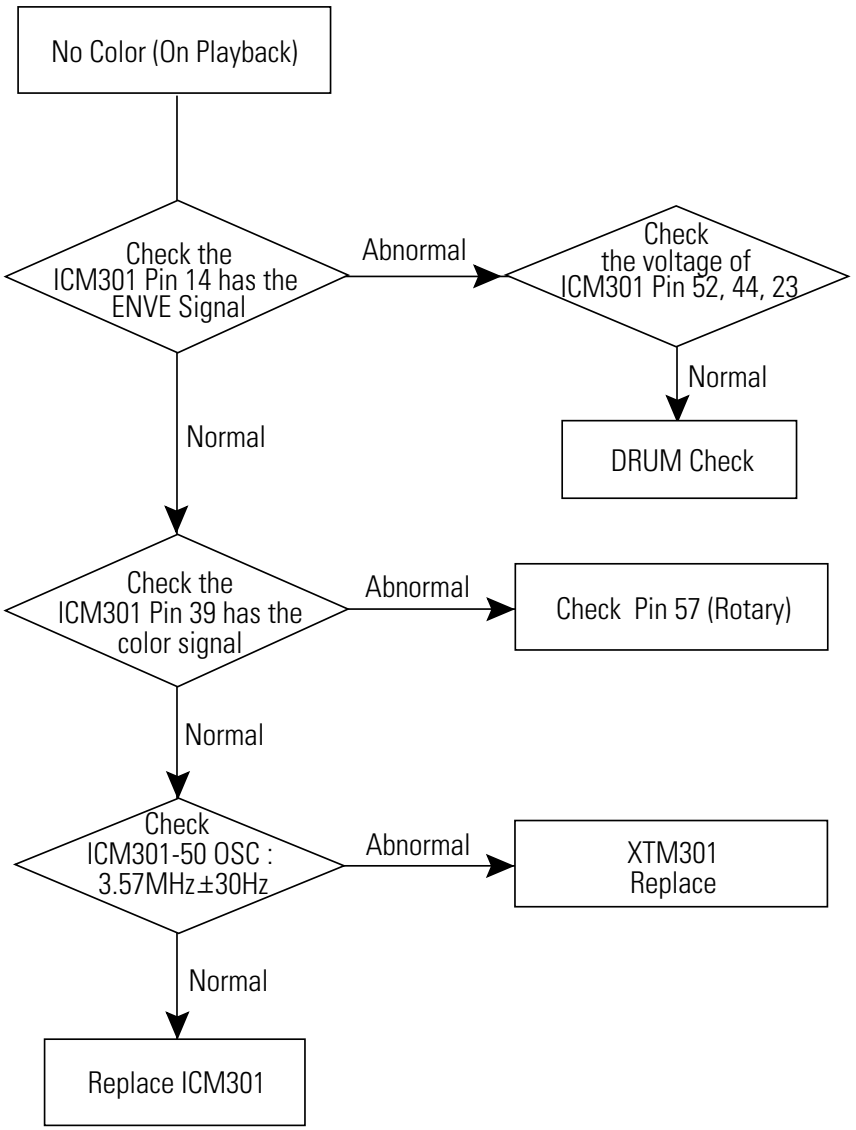
5-25 No Picture During Playback


Insert a tape and set to the PLAYBCAK mode
Check the FM video signal at ICM301 Pin 14
Abnormal
Check the ENV connecting pattern
Normal
Check the video signal at ICM301 Pin 21
Abnormal
Check the voltage of ICM301 Pin 58
Abnormal
Check the voltage of ICM601 Pin24
Normal
Replace ICM301
Normal
Check the video signal at ICM301 Pln 34
Abnormal
Check the output of video signal at CM354
Normal
Check the video output signal at ICM301 Pin 26
Abnormal
Replace ICM301
Normal
Check IC902(UOC) neighbor circuits

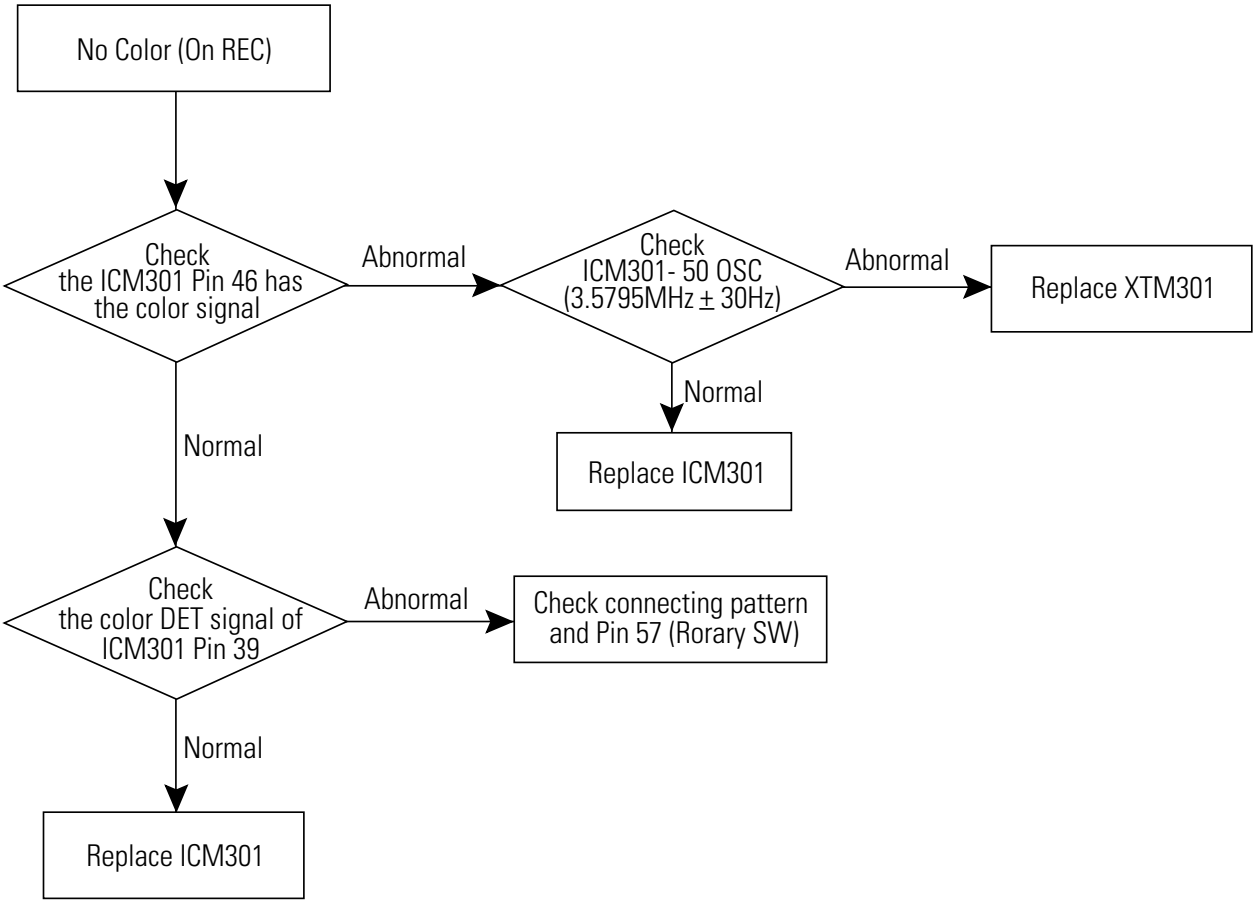
5-26 No Picture During Record


Insert a Video tape and Set to the REC mode
Check the ICM301 Pin 32 has the Video input signal
Abnormal
Check the Input/Output block IC902(UOC)
Normal
Check the ICM301 Pin 73 has the FM video signal
Abnormal
Check the ICM301 Pin72, 74 has the FM video signal
Abnormal
Check the high voltage of IC901 Pin 54, 55, 56 (D-REC)
Normal
Normal
Check the video head (DRUM)
Replace ICM301

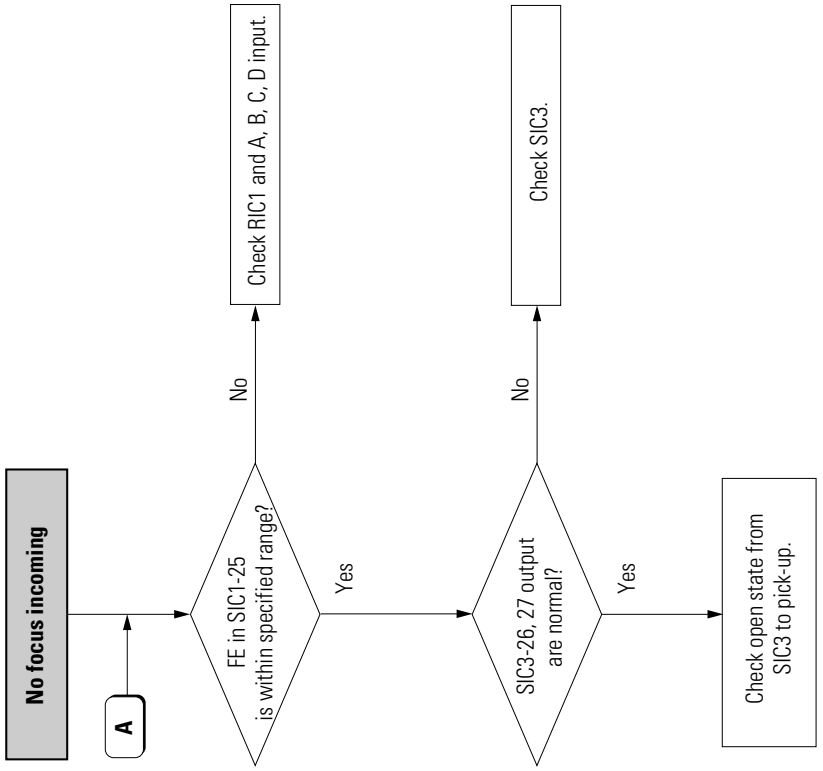
5-27 No Color During Playback

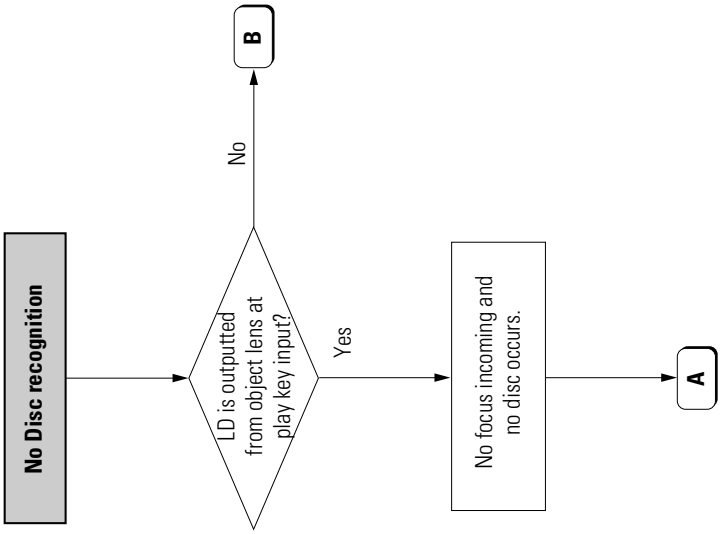


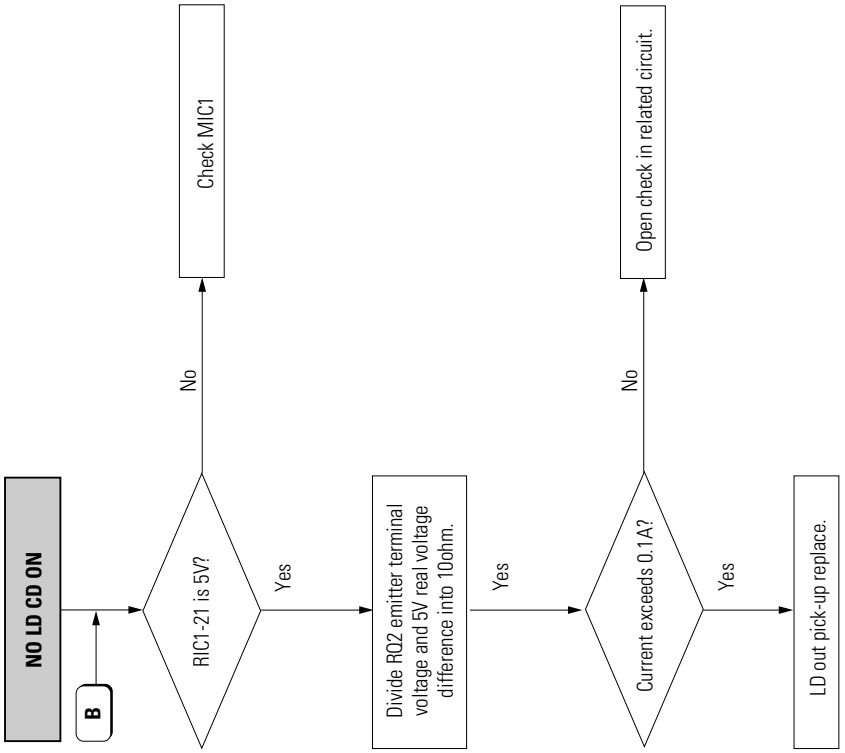
5-28 No Color During Record

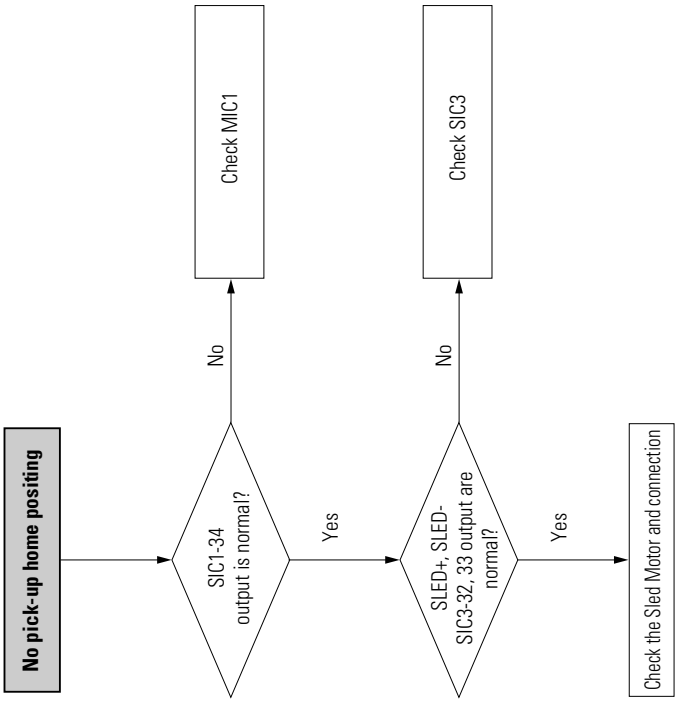


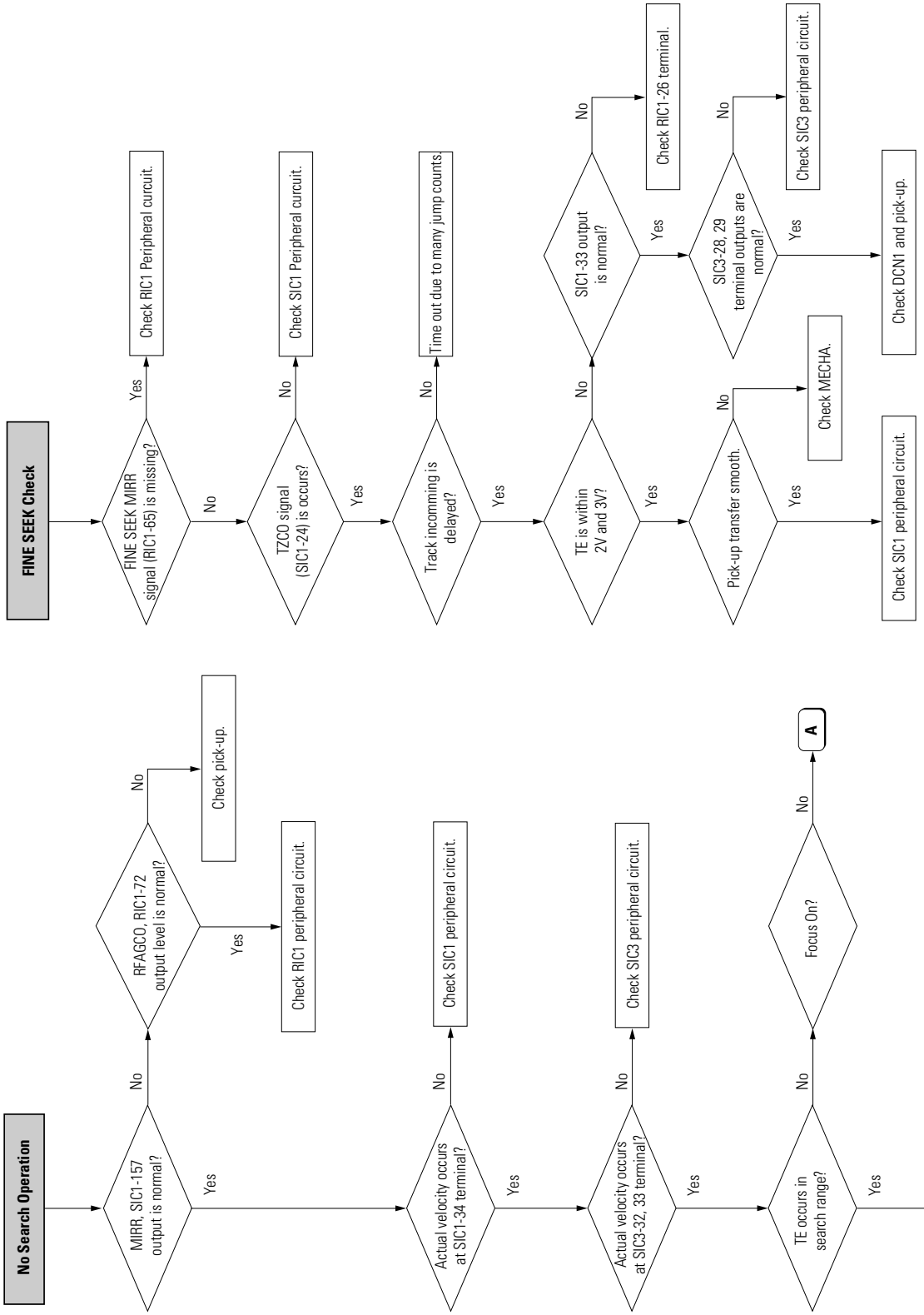
5-29 DVD Block

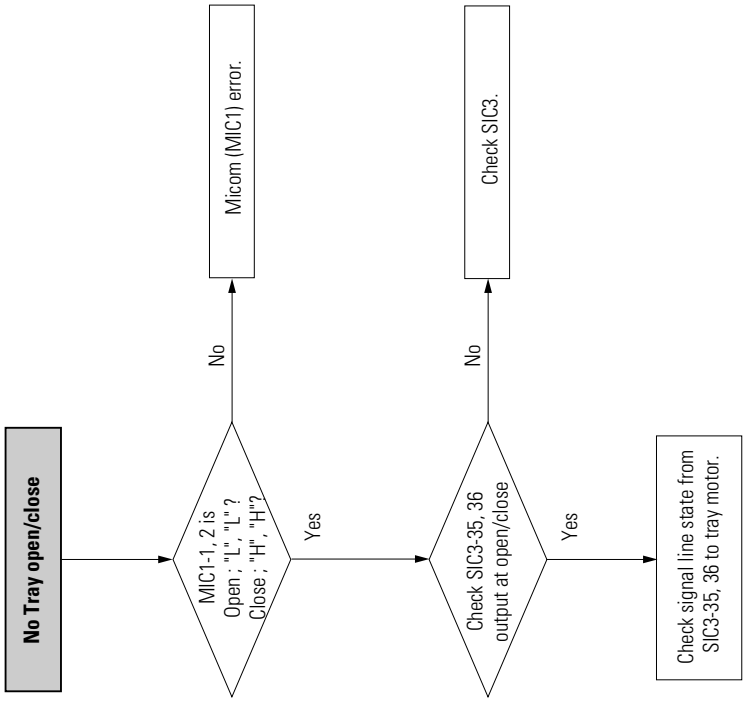


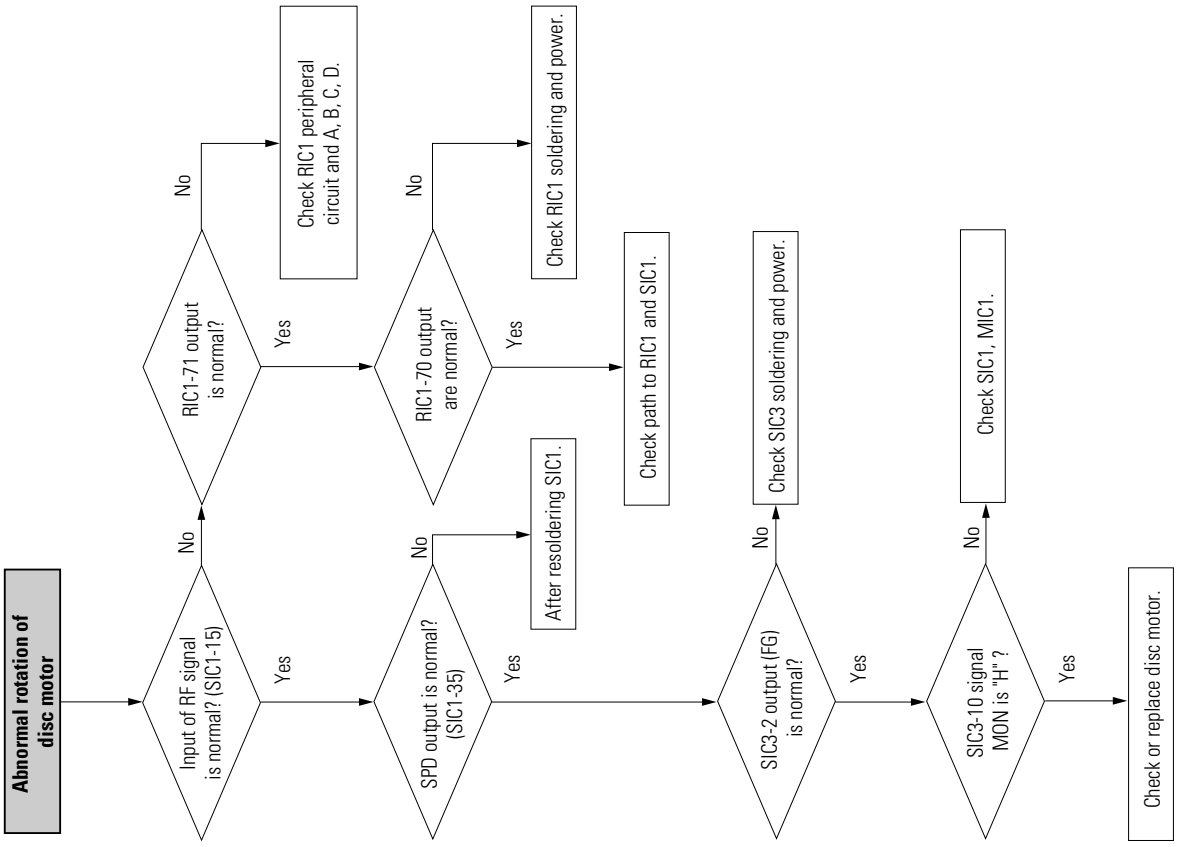


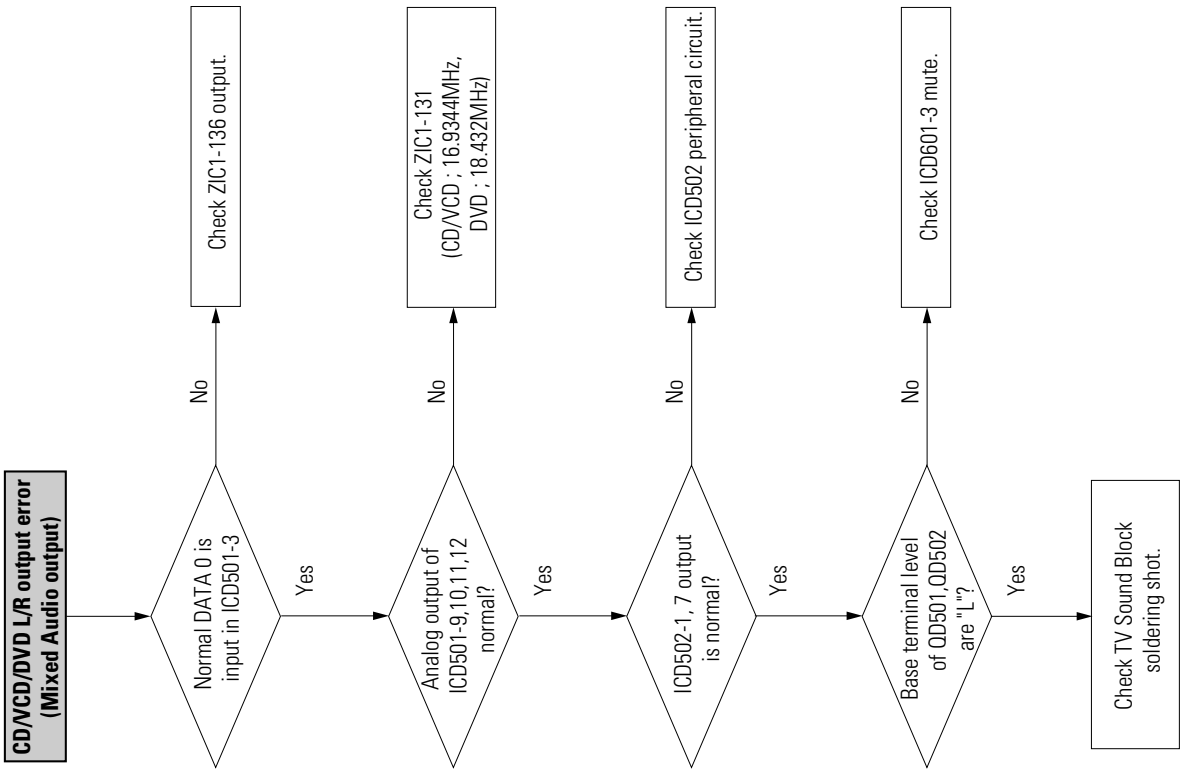

NO LD CD ON
B
RIC1-21 is 5V?
No
Check MIC1
Yes
Divide RQ2 emitter terminal voltage and 5V real voltage difference into 10ohm.
Yes
Current exceeds 0.1A?
No
Open check in related circuit.
Yes
LD out pick-up replace.

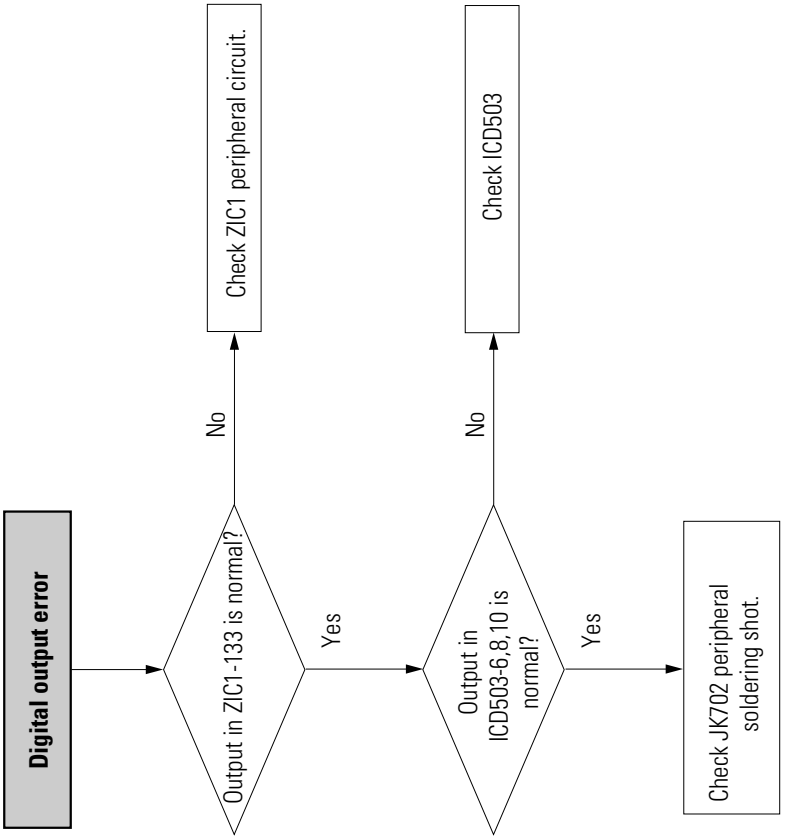

No pick-up home positing
SIC1-34 output is normal?
No
Check MIC1
Yes
SLED+, SLED- SIC3-32, 33 output are normal?
No
Check SIC3
Yes
Check the Sled Motor and connection


No Search Operation
MIRR, SIC1-157 output is normal?
No
RFAGCO, RIC1-72 output level is normal?
No
Check pick-up.
Yes
Check RIC1 peripheral circuit.
Yes
Actual velocity occurs at SIC1-34 terminal?
No
Check SIC1 peripheral circuit.
Yes
Actual velocity occurs at SIC3-32, 33 terminal?
No
Check SIC3 peripheral circuit.
Yes
TE occurs in search range?
No
Focus On?
No
A
Yes
See "Fine Seek Check"
FINE SEEK Check
FINE SEEK MIRR signal (RIC1-65) is missing?
Yes
Check RIC1 Peripheral curcuit.
No
TZCO signal (SIC1-24) is occurs?
No
Check SIC1 Peripheral curcuit.
Yes
Track incomming is delayed?
No
Time out due to many jump counts.
Yes
TE is within 2V and 3V?
No
SIC1-33 output is normal?
No
Check RIC1-26 terminal.
Yes
Pick-up transfer smooth.
No
Check MECHA.
Yes
Check SIC1 peripheral circuit.
SIC3-28, 29 terminal outputs are normal?
No
Check SIC3 peripheral circuit.
Yes
Check DCN1 and pick-up.


No Tray open/close
MIC1-1, 2 is Open ; "L", "L" ? Close ; "H", "H"?
No
Micom (MIC1) error.
Yes
Check SIC3-35, 36 output at open/close
No
Check SIC3.
Yes
Check signal line state from SIC3-35, 36 to tray motor.

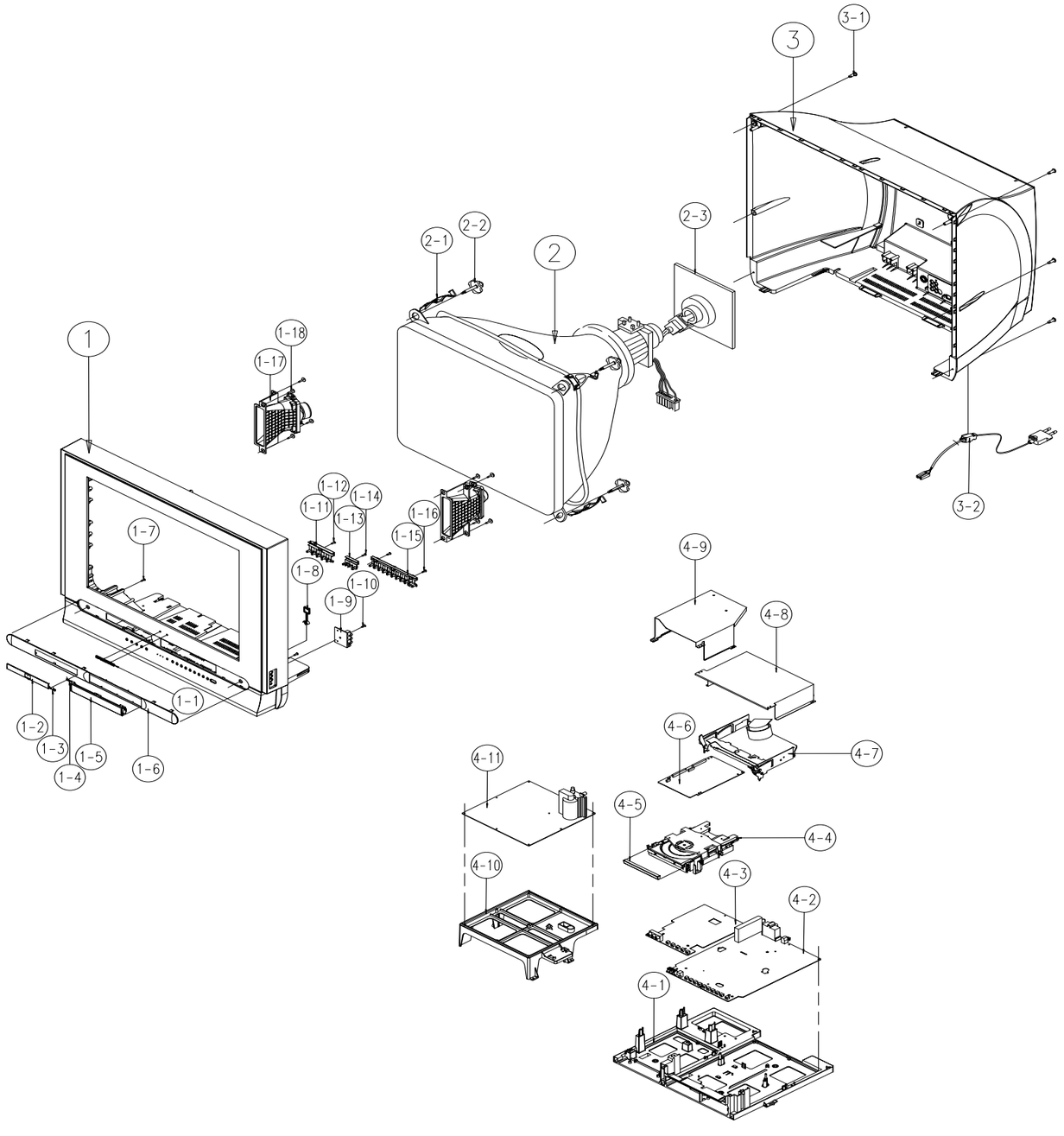

Abnormal rotation of disc motor
Input of RF signal is normal? (SIC1-15)
No
Check RIC1 peripheral circuit and A, B, C, D.
Yes
RIC1-71 output is normal?
No
Check RIC1 soldering and power.
Yes
RIC1-70 output are normal?
No
After resoldering SIC1.
Yes
SPD output is normal? (SIC1-35)
No
Check path to RIC1 and SIC1.
Yes
Check SIC3 soldering and power.
SIC3-2 output (FG) is normal?
No
Check SIC1, MIC1.
Yes
SIC3-10 signal MON is "H" ?
No
Check or replace disc motor.
Yes


CD/VCD/DVD L/R output error
(Mixed Audio output)
Normal DATA 0 is input in ICD501-3
No
Check ZIC1-136 output.
Yes
Analog output of ICD501-9,10,11,12 normal?
No
Check ZIC1-131 (CD/VCD ; 16.9344MHz, DVD ; 18.432MHz)
Yes
ICD502-1, 7 output is normal?
No
Check ICD502 peripheral circuit.
Yes
Base terminal level of QD501,QD502 are "L"?
No
Check ICD601-3 mute.
Yes
Check TV Sound Block soldering shot.


Digital output error
Output in ZIC1-133 is normal?
No
Check ZIC1 peripheral circuit.
Yes
Output in ICD503-6,8,10 is normal?
No
Check ICD503
Yes
Check JK702 peripheral soldering shot.

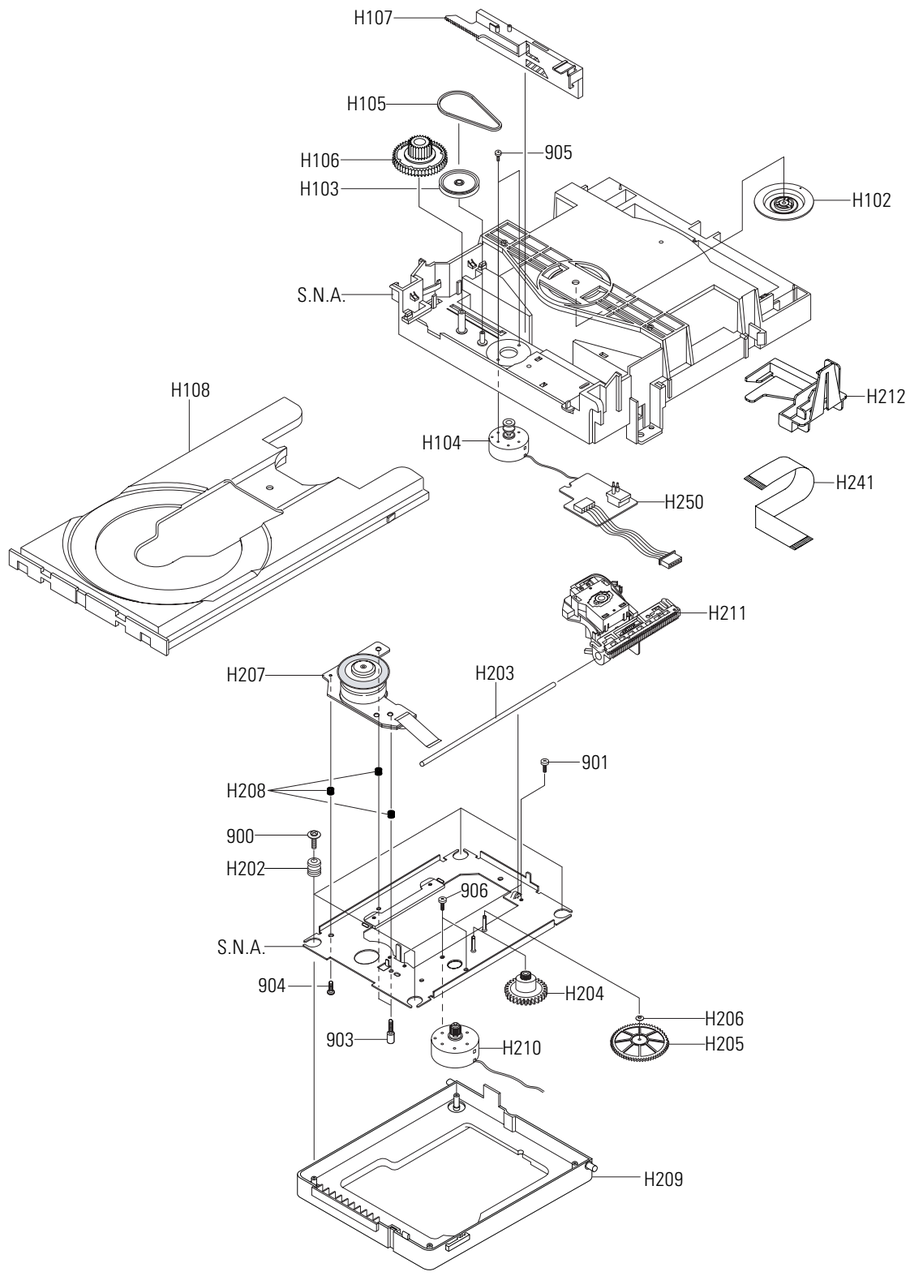
6. Exploded View & Parts List

6-1 CXM2785TPX/XAA



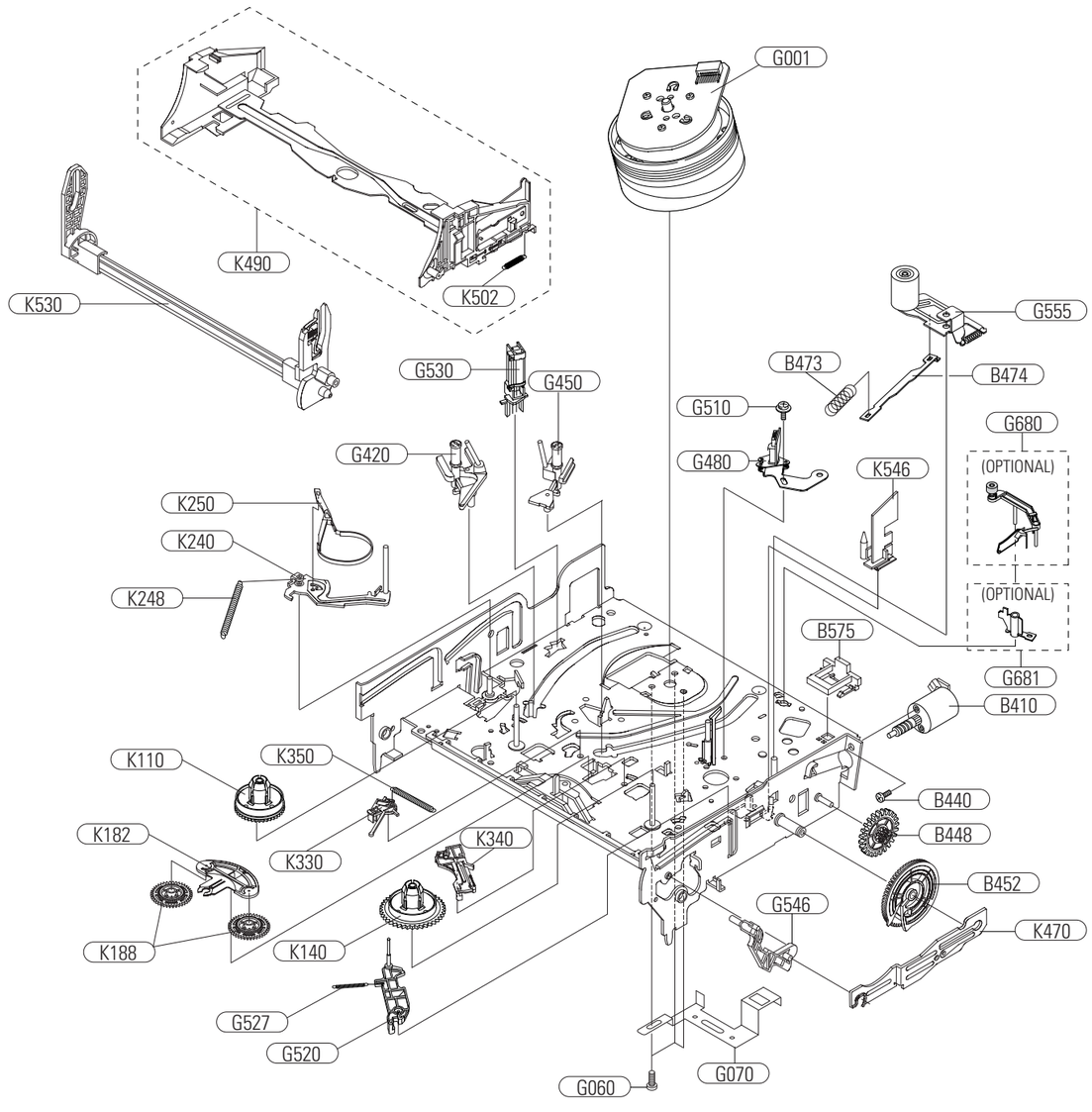
No	Code No	Description;Specification	Q'ty	Remark	S.N.A
1	AA64-03125A	CABINET-FRONT;29J6,HIPS,V0,G4309,DG703P	1		
1-1	AA64-70117B	BADGE-BRAND;-,AL,-,-,L65,R2000,SILVER,SS	1		
1-2	AA64-03128A	DOOR-DVD;29J6,ABS HB,G4309,SV704P	1		
1-3	AA61-01223A	SPRING ETC-DOOR,DVD;21J5,SUS304,T0.3	1		
1-4	AA61-01224A	SPRING ETC-DOOR,VCR;21J5,SUS304,T0.4	1		
1-5	AA64-02960B	DOOR-HOUSUNG;29J6,ABS HB,G4309,SV704P	1		
1-6	AA64-03127A	DECORATION;29J6,ABS,HB,G4309,SV704P	1		
1-7	6003-001026	SCREW-TAPTITE;RH,+,B,M4,L15,ZPC(BLK),SWR	2	DECO+C	
1-8	AA65-00011C	CLAMPER CORE-WIRE;ALL MODEL,NYLON 66,V2,	1		
1-9	AA94-11923A	ASSY PCB MISC-A/V;,V18B 1			
1-10	6003-001268	SCREW-TAPTITE;TH,+,B,M4.0,L12.0,ZPC(YEL)	1	AV+CF	
1-11	AA64-03130A	KNOB-DVD;29J6,ABS,HB,G3676,DG703P+W971	1		
1-12	6003-001026	SCREW-TAPTITE;RH,+,B,M4,L15,ZPC(BLK),SWR	1	KD+CF	
1-13	AA64-03132A	WINDOW-RMC,LED;29J6,PC,CLR	1		
1-14	6003-001026	SCREW-TAPTITE;RH,+,B,M4,L15,ZPC(BLK),SWR	1	WIN+CF	
1-15	AA64-03129A	KNOB-FAMILY;29J6,ABS,HB,G3676,DG703P+W97	1		
1-16	6003-001026	SCREW-TAPTITE;RH,+,B,M4,L15,ZPC(BLK),SWR	2	KF+CF	
1-17	AA96-01239A	ASSY SPEAKER P;8OHM,AA39-00102R,5W,900/5	1		
1-18	6006-001095	SCREW-ASS'Y TAPT;WP,BH,+,M4,L12,ZPC(YEL)	8	SPK+CF	
2	AA03-00273A	CRT COLOR;A68QCP891X100,+380MG,1.1MH,14.	1		
2-1	AA65-00019A	CLAMPER CORE-D,COIL;25-34,NYLON 66,V2,N	4		
2-2	AA60-10050V	SCREW-ASSY;-,SWRCH18A,M6,L30,HH,+,WC,-,Z	4	CRT+CF	
2-3	AA94-11889A	ASSY PCB CRT;,V18B 1			
3	AA64-03126A	CABINET-BACK;29J6,HIPS,V0 1			
3-1	AA60-10050T	SCREW-TAPPING;-,SWRCH18A,M4,L20,RH,+,2S,	7	CB+CF	
3-2	AA96-20129K	ASSY POWER CORD;,EP2/YES,H/S 450MM,KJ10W	1		
4-1	AA61-01184A	HOLDER-DECK;COMBO,HIPS V0,G4309	1		
4-2	AA94-12071A	ASSY PCB MAIN;,V18B 1			
4-3	AA94-12364A	ASSY PCB MISC-INTERFACE;TORNADO-II,V18B,	1		
4-4	AA61-01187A	HOLDER-TRAY;21J5,ABS HB,BLK	1		
4-5	AA96-00976A	ASSY MISC P-M/DVDP;DVD-DS002/SAM,V18A, ,	1		
4-6	AA96-00977A	ASSY MISC P-PCB,M/DVDP;DVD-PSA21/SAM,V18	1		
4-7	AA96-00959A	ASSY MISC P-M-DECK;, , ,6HD,19UM,NTSC,HQ	1		
4-8	AA63-00594A	SHIELD-VCR;COMBO,SECC,T0.5	1		
4-9	AA63-00595A	SHIELD-DVD;COMBO,SECC,T0.5	1		
4-10	AA61-01241A	HOLDER-PCB;29J6,HIPS V0,G4309	1		
4-11	AA94-12176A	ASSY PCB POWER;,V18B 1			

6-2 DVD Deck Assembly



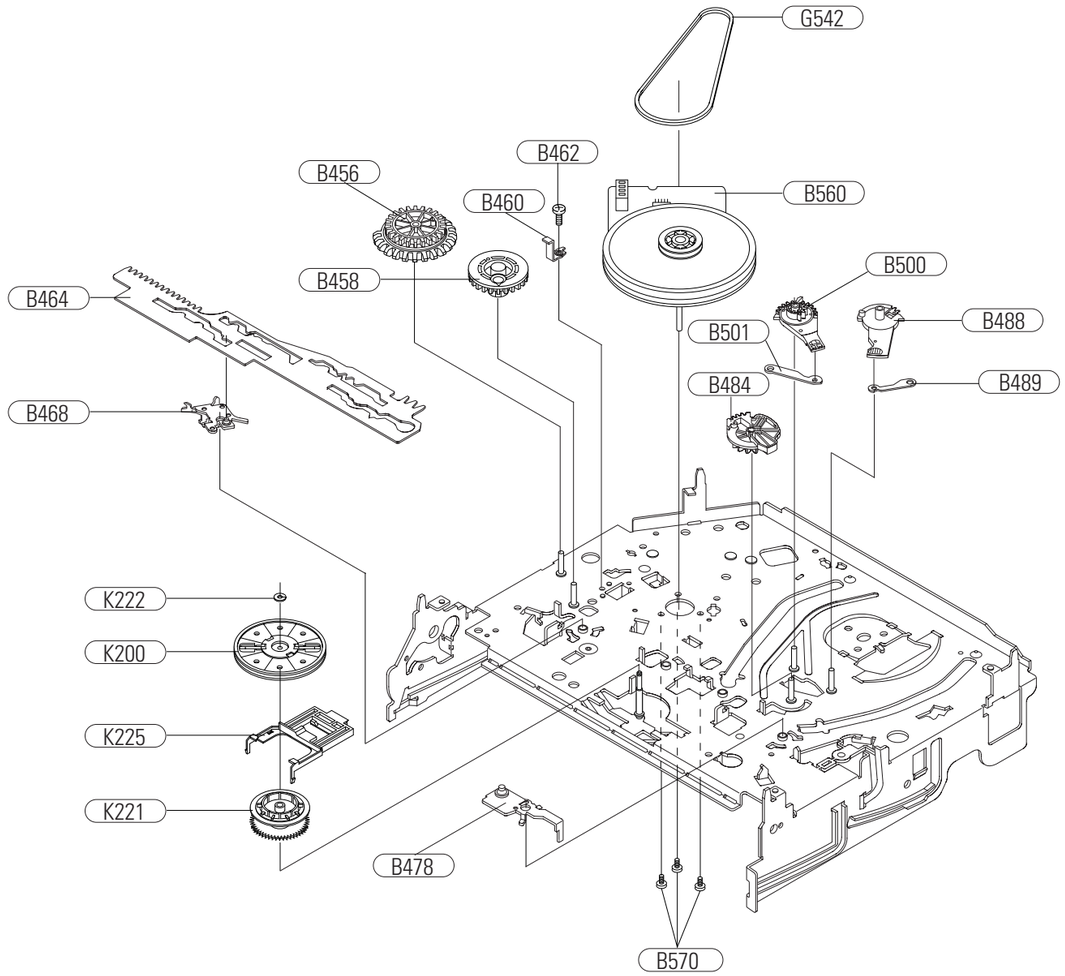
Loc. No	Parts No.	Description ; Specification	Remark
900	6003-001157	SCREW-TAPTITE;PWH,+,B,M2,L6,ZPC(YEL),SWR	
901	6001-001522	SCREW-MACHINE;FH,+,M2.6,L7,ZPC(YEL),SWRC	
903	6009-001245	SCREW-SPECIAL;SWRCH18A,NYLOCK,SOCKET,HEX	
904	6001-001466	SCREW-MACHINE;BH,+,M2,L6,ZPC(BLK),SWRCH1	
905	6001-001257	SCREW-MACHINE;PWH,+,M1.7,L3,ZPC(YEL),SWR	
906	AH60-00010A	SCREW-MACHINE-MOTOR;-,+,SWCH18AK,M1.7,L2	
H102	AH66-00111B	CLAMPER-ASSY;DP-5,POM+MAGNET,-,-,-,-,-,-	
H103	AH66-00123A	PULLEY-GEAR;DP-7,POM M90-44,-,-,-,-,-,-	
H104	AH31-00024A	MOTOR-LOAD ASSY;SM-2412L2,DP-7,-,-,-,-,-	
H105	6602-001076	BELT-RECTANGULAR;CR,T1.2,4.3%,1.2X25.1,B	
H106	AH66-00124A	GEAR-TRAY;DP-7,POM,M90-44,-,-,-,-,-,-,-	
H107	AH66-00125A	LIDER-HOUSING;DP-7,POM,-,-,-,-,-,	
-H108	AH63-00217A	RAY-DISC;-,ABS,-,-,-,-,BLK,DP-7	
H202	AH73-00023A	RUBBER-INSULATOR;BUTYL RUBBER,-,DP-3,	
H203	AH61-50327A	SHAFT-P/U;DP-3,SUS420J2,L84.7,OD3,-,-,-	
H204	AH66-00075A	GEAR-FEED A;-,POM M90-44,-,-,-,-,-,-,-,-	
H205	AH66-00170A	GEAR-FEED B;DP-7S,POM M90-44,0.5,14,-,-,	
H206	AC60-30306A	WASHER-SLIT;-,-,ID2.1,OD5.0,T0.5,-,POLYS	
H207	AH31-00032A	OTOR-SPINDLE ASSY;RSM-2610F1,DP-7S,-,-,	
H208	AH61-00403A	SPRING ETC-SPINDLE;DP-5,SWPB,PI4.9,-,-,-	
H209	AH61-00513A	CHASSIS-SUB;DP-7,ABS(SR-0320),-,-,-,-,-,	
H210	AH31-00016A	MOTOR-FEED ASSY;-,DP-5,-,-	
H211	AH97-00961A	ASSY-PICK UP;-,SOH-DS2,SEM,W/T	COMMON
	AH97-00900A	ASSY-PICK UP;-,SOH-DS2,ASS¡¯Y-PICK-UP	CIS ONLY
H212	AH61-00891A	HOLDER-FFC;DP-7S,PP,1,-,-,NTR,-	
H241	3809-001303	CABLE-FLAT;30V,80C,230MM,24P,1MM,UL2896	
H250	AH92-00900A	ASSY-HOUSING PCB;DVD-M101,MILLENO DECK(B	

6-3 Mechanical Parts (Top Side)



Loc. No	Parts No.	Description ; Specification	Remark
B410	AC31-00012A	MOTOR-LOADING ASSY;-,TS-10,-,-,-,-,-,-,-	
B440	AC60-10515A	SCREW-MACHINE;-,PH,+,-,M3,L3,ZPC,-,YEL	
B448	AC66-00008A	GEAR-WORM WHEEL;TS-10,POM,0.8,40,-,NAT,3	
B452	AC66-00011A	GEAR-FL CAM;TS-10,POM,0.8,59,-,BLK,48.48	
B473	AC61-00105A	SPRING-PINCH DRIVE;TS-10,SUS304-WPB,-,-,	
B474	AC61-30180A	PLATE-JOINT;-,SECC20/20,T0.8,-,X-9	
B575	AC47-00002A	DAMPER-CAPSTAN;TS-10,POM,-,-,BLACK	
G001	AC97-01204A	ASSY-CYLINDER;NTSC CTS10,6HD/DLC	
G060	6006-001092	SCREW-ASS? MACH;WS,PH,+,M3.0,L6.0,ZPC(Y	
G070	AC61-00161A	PLATE-GROUND DECK;TS-10,SPTE,T0.3,-	
G420	AC66-80142A	SLIDER-SUPPLY ASSY;-,X-9(TS),-,-,-,X-9	
G450	AC66-80141A	SLIDER-TAKE UP ASSY;-,X-9(TS),-,-,-,X-9	
G480	AC33-00009A	HEAD-ACE ASS?;-,PPS,TS-10,-,-	
G510	6006-001075	SCREW-ASS? TAPT;WSP,PH,+,M2.6,L5.0,ZPC(	
G520	AC66-00033A	LEVER-#9 GUIDE ASS?;TS-10,-,-,-,-,-,-,-	
G527	AC61-60553A	SPRING-#9 GUIDE;-,ES,SUS304-WPB,OD3.1,0.	
G530	AC33-00007A	HEAD-FE;-,-,HVFHPO043A,-,-	
G546	AC66-00005A	LEVER-FL DOOR;TS-10,POM,-,-,-,-,NAT,-	
G555	AC66-00032A	LEVER-UNIT PINCH ASS?;TS-10,-,-,-,-,-,-	
G680	AC66-00046A	LEVER-HEAD CLEANER ASS?;TS-10,POM+URETH	
G681	AC61-50686A	SLEEVE-HEAD CLEANER;-,POM,-,-,-,-,-,-,TS	
K110	AC66-10267A	REEL-DISK S;X-9,POM,-,-,-,-,-,-	
K140	AC66-10268A	REEL-DISK T;X-9,POM,-,-,-,-,-,-	
K182	AC66-30524A	LEVER-IDLER;-,POM,-,-,-,-,-,-	
K188	AC66-00039A	GEAR-IDLE;TS-10,PET K3372,0.5,-,-,NTR,28	
K240	AC66-00035A	LEVER-TENSION ASS?;TS-10,SECC E20/20+SU	
K248	AC61-00107A	SPRING-TENSION LEVER;TS-10,SUS304-WPB,-,	
K250	AC69-00104A	BAND-BRAKE ASS?;TS-10,-,-,-,-,-,-	
K330	AC66-30550A	LEVER-S.BRAKE ASSY;-,POM+SUS,-,-,-,X-9	
K340	AC66-30549A	LEVER-T.BRAKE ASSY;-,POM+SUS,-,-,-,X-9	
K350	AC61-00106A	SPRING-BRAKE;TS-10,SUS304-WPB,-,-,-,-,-,	
K470	AC66-00020A	SLIDER-FL DRIVE;TS-10,SECC E20/20,1.0,-,	
K490	AC61-00120A	HOLDER-FL CASS. ASS?;TS-10,-,-,-,-,-	
K502	AC61-60561A	SPRING-FL.LEVER-LR;-,ES,SUS304 WPB,PI2.7	
K530	AC66-00034A	LEVER-FL ARM ASS?;TS-10,-,-,-,-,-,-,-	
K546	AC61-50658A	GUIDE-CASS. DOOR;X-9,POM,-,NTR,-,-	

6-4 Mechanical Parts (Bottom Side)



Loc. No	Parts No.	Description ; Specification	Remark
B456	AC66-00009A	GEAR-JOINT 1;TS-10,POM,1.5,17.5(22),-,NA	
B458	AC66-00012A	GEAR-JOINT 2;TS-10,POM,1.0,23,-,BLK,24.6	
B460	AC61-00090A	BRACKET-GEAR;TS-10,0.8,-,-	
B462	AC60-10517A	SCREW-TAP TITE;-,PH,+,-,M2.6,L5,ZPC,-,YE	
B464	AC66-00019A	SLIDER-CAM;TS-10,SECC E20/20,1.2,-,-,-,-	
B468	AC66-00017A	LEVER-PINCH DRIVE;TS-10,SECC E20/20,1.0	
B478	AC66-00016A	LEVER-TENSION DRIVE;TS-10,SECC E20/20,1	
B484	AC66-00030A	GEAR-LOADING DR. ASS?;TS-10,POM+SWPB,-,	
B488	AC66-00023A	LEVER-S LOADING;TS-10,POM,-,-,-,-,NAT,-	
B489	AC66-00021A	LINK-LOADING S;TS-10,SECC E20/20,0.8,-,-	
B500	AC66-00024A	LEVER-T LOADING;TS-10,POM,-,-,-,-,NAT,-	
B501	AC66-00022A	LINK-LOADING T;TS-10,SECC E20/20,0.8,-,-	
B560	AC31-00010A	MOTOR-CAPSTAN;-,SANKYO,-,-	
B570	AC60-10514A	SCREW-CAPSTAN;-,PH,+,M2.6,L6,-	
G542	AC66-60051A	BELT-PULLEY;-,5CM-70,2 * 2,-,71.3,-,X-9	
K200	AC61-21012A	HOLDER-CLUTCH ASSY;-,-,-,-,-,X-9	
K221	AC66-20581A	GEAR-CENTER ASSY;-,POM,M=0.5,-,HIGHT T.,	
K222	AC60-30306A	WASHER-SLIT;-,-,ID2.1,OD5.0,T0.5,-,POLYS	
K225	AC66-00006A	LEVER-UP DOWN;TS-10,POM,-,-,-,-,NAT,-	

7. Electrical Parts List

7-1 CXM2785TPX/XAA

Level	Loc. No.	Code No.	Description ; Specification	Remark

ASSY CHASSIS

1	*	AA91-05991A	ASSY CHASSIS;CXM2785TPX/XAA,V18B	
..2	DDECK+	6003-001022	SCREW-TAPTITE;RH,+,B,M3,L12,ZPC(BLK),SWR	
..2	DVDP+H	6003-001022	SCREW-TAPTITE;RH,+,B,M3,L12,ZPC(BLK),SWR	
..2	HP+HD	6002-000522	SCREW-TAPPING;TH,+,2,M4,L15,ZPC(BLK),SWR	
..2	IP+HD	6003-001023	SCREW-TAPTITE;RWH,+,B,M3,L10,ZPC(YEL),SW	
..2	MAINP+	6003-001023	SCREW-TAPTITE;RWH,+,B,M3,L10,ZPC(YEL),SW	
..2	POWERP	6003-001023	SCREW-TAPTITE;RWH,+,B,M3,L10,ZPC(YEL),SW	
..2	SDVD+H	6003-001023	SCREW-TAPTITE;RWH,+,B,M3,L10,ZPC(YEL),SW	
..2	SVCR+H	6003-001023	SCREW-TAPTITE;RWH,+,B,M3,L10,ZPC(YEL),SW	
..2	VDECK+	6002-000522	SCREW-TAPPING;TH,+,2,M4,L15,ZPC(BLK),SWR	
..2		AA94-12071A	ASSY PCB MAIN;,V18B	
...3	CN001	AA39-00180D	LEAD CONNECTOR-ASSY;V18A,UL1007#26,UL/CS	
...3	CN002	3711-003974	CONNECTOR-HEADER;BOX,12P,1R,2.5mm,STRAIG	
...3	CN003	AA39-00180D	LEAD CONNECTOR-ASSY;V18A,UL1007#26,UL/CS	
...3	CN004	3711-003051	CONNECTOR-HEADER;BOX,8P,1R,2.5MM,STRAIGH	
...3	CN005	3711-002642	CONNECTOR-HEADER;BOX,3P,1R,2.5mm,STRAIGH	
...3	CN006	AA39-20005D	LEAD CONNECTOR-ASSY;,3P,YBNH250-03,67096	
...3	CN701	3711-003973	CONNECTOR-HEADER;BOX,11P,1R,2.5mm,STRAIG	
...3	CNM301	3708-000391	CONNECTOR-FPC/FFC/PIC;10P,1.25mm,STRAIGH	
...3	CNM302	3708-000394	CONNECTOR-FPC/FFC/PIC;6P,1.25mm,STRAIGHT	
...3	CNM303	3710-001648	CONNECTOR-SOCKET;2P,1R,2.5mm,STRAIGHT,SN	
...3	CNM601	AA39-20603A	LEAD CONNECTOR-ASSY;,2P,GIL-S-2S-S2C2-S,	
...3	CNM602	3711-003749	CONNECTOR-HEADER;BOX,8P,2R,2mm,STRAIGHT,	
...3	CNM604	3708-001053	CONNECTOR-FPC/FFC/PIC;7P,1.25mm,STRAIGHT	
...3	FLM301	AA26-10006C	TRANS RF;-,7MF,BIAS,2.4MH,7MM,-,65.3KHZ,	
...3	GPM001	AA63-00444B	GROUND;TVCR,PBS,T0.3,-,-,-,SUS-DECK	
...3	IC901	1103-001106	IC-EEPROM;C81DC,1028x8Bit,DIP,8P,300MIL,	
...3	ICM603	1003-001318	IC-MOTOR DRIVER;LB11880,DIP,30P,417MIL,-	
...3	JK701	3722-001215	JACK-PIN;9P(6P),3.4mm,SN,BLK,#16-22	
...3	JK702	3707-001005	CONNECTOR-OPTICAL;PLUG,SM,-,4.4/2.0MM	
...3	LDM601	AA96-00462A	ASSY LED GUIDE;-,-,DL-11S2R1,RED	
...3	LDM602	AA91-60318A	ASSY-HOLDER,LED;-,ABS,HB,BLK,IR LED,TS-D	
....4		0601-001303	LED-IR;SIDE-VIEW,2.5mm,75mW,6V,950nm,	
....4		AA61-00003A	HOLDER-LED;TVN-502V,ABS,-,-,-,BLK,HB	
...3	PTM601	0604-001122	PHOTO-INTERRUPTER;TR,0.065%,150mW,DIP-4,	
...3	PTM602	0604-001122	PHOTO-INTERRUPTER;TR,0.065%,150mW,DIP-4,	
...3	REM701	AA59-60003V	MODULE REMOCON;-,SRV-18,38KHZ,940NM,MESH	
...3	SM601	AA91-60319A	ASSY-HOLDER,SENSOR;-,ABS,HB,BLK,TR LED,T	
....4		0603-001011	PHOTO TR;NPN,35V,6V,50mA,75mW,BK	
....4		AA61-00005A	HOLDER-SENSOR;TVN-502V,ABS,-,-,-,BLK,HB	
...3	SM602	AA91-60319A	ASSY-HOLDER,SENSOR;-,ABS,HB,BLK,TR LED,T	
...3	SWM601	AA34-20001A	SWITCH-MODE;1,25x14.6x29.8mm,BK,DC5V	
...3	SWM602	AA34-40001A	SWITCH-REC.;1EA,37.5x14.4mm,BK,DC5V	
...3	TPM01	3711-002643	CONNECTOR-HEADER;BOX,4P,1R,2.5mm,STRAIGH	
⚠ ...3	TU01S	AA40-00053A	TUNER;TMDH9-A04A,NTSC,181CH,45.75MHZ,75O	
...3		AA39-20010A	LEAD CONNECTOR-ASSY;,1P,YFH800-01,S,200,	
...3		AA39-00120A	LEAD CONNECTOR-ASSY;,11P,35155-1100,S,60	
...3		AA97-12828A	ASSY AUTO-MAIN;,V18B	
....4	BDM601	3301-000287	CORE-FERRITE BEAD;AA,3.5x1.0x6.0mm,1500,	
....4	C101	2202-000231	C-CERAMIC,MLC-AXIAL;330pF,10%,50V,Y5P,TP	
....4	C102	2202-000231	C-CERAMIC,MLC-AXIAL;330pF,10%,50V,Y5P,TP	
....4	C103	2401-000025	C-AL;100uF,20%,16V,GP,TP,6.3x11,5	
....4	C104	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
....4	C105	2401-000039	C-AL;1000uF,20%,16V,GP,TP,10x16,5	
....4	C106	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
....4	C108	2401-000480	C-AL;10uF,20%,50V,GP,TP,5x11,5	
....4	C215	2301-000192	C-FILM,PEF;1nF,5%,50V,TP,5.3x10mm,5mm	
....4	C216	2401-003102	C-AL;100uF,20%,10V,GP,TP,5x11,5	
....4	C218	2202-000807	C-CERAMIC,MLC-AXIAL;22nF,+80-20%,25V,Y5V	
....4	C219	2202-000183	C-CERAMIC,MLC-AXIAL;2.2NF,20%,16V,Y5R,TP	
....4	C220	2401-000603	C-AL;1uF,20%,50V,GP,TP,5x11,5	
....4	C221	2202-000183	C-CERAMIC,MLC-AXIAL;2.2NF,20%,16V,Y5R,TP	
....4	C222	2401-000660	C-AL;2.2uF,20%,50V,GP,TP,5x11,5	
....4	C223	2202-000807	C-CERAMIC,MLC-AXIAL;22nF,+80-20%,25V,Y5V	
....4	C226	2202-000796	C-CERAMIC,MLC-AXIAL;1NF,10%,50V,Y5P,TP,3	
....4	C227	2202-000796	C-CERAMIC,MLC-AXIAL;1NF,10%,50V,Y5P,TP,3	
....4	C229	2309-000138	C-FILM,PE-PPF;100nF,5%,50V,TP,20x16x8.5,	
....4	C231	2305-000196	C-FILM,MPEF;150nF,5%,63V,TP,-,5mm	
....4	C232	2301-000192	C-FILM,PEF;1nF,5%,50V,TP,5.3x10mm,5mm	
....4	C233	2202-000127	C-CERAMIC,MLC-AXIAL;10nF,+80-20%,25V,Y5V	
....4	C234	2202-000807	C-CERAMIC,MLC-AXIAL;22nF,+80-20%,25V,Y5V	
....4	C235	2401-003102	C-AL;100uF,20%,10V,GP,TP,5x11,5	
....4	C239	2305-000196	C-FILM,MPEF;150nF,5%,63V,TP,-,5mm	
....4	C240	2305-000196	C-FILM,MPEF;150nF,5%,63V,TP,-,5mm	
....4	C241	2202-000632	C-CERAMIC,MLC-AXIAL;100nF,20%,50V,Z5U,TP	
....4	C242	2401-000027	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
....4	C246	2401-000913	C-AL;22uF,20%,16V,GP,TP,5x11,5	
....4	C247	2202-000183	C-CERAMIC,MLC-AXIAL;2.2NF,20%,16V,Y5R,TP	
....4	C248	2202-000286	C-CERAMIC,MLC-AXIAL;56pF,5%,50V,SL,TP,1.	
....4	C249	2401-003102	C-AL;100uF,20%,10V,GP,TP,5x11,5	
....4	C250	2202-000807	C-CERAMIC,MLC-AXIAL;22nF,+80-20%,25V,Y5V	
....4	C601	2305-000411	C-FILM,MPEF;470nF,5%,50V,TP,7.3x4.8x5.5m	
....4	C602	2305-000411	C-FILM,MPEF;470nF,5%,50V,TP,7.3x4.8x5.5m	
....4	C603	2305-000411	C-FILM,MPEF;470nF,5%,50V,TP,7.3x4.8x5.5m	
....4	C604	2305-000411	C-FILM,MPEF;470nF,5%,50V,TP,7.3x4.8x5.5m	
....4	C605	2305-000411	C-FILM,MPEF;470nF,5%,50V,TP,7.3x4.8x5.5m	
....4	C606	2305-000411	C-FILM,MPEF;470nF,5%,50V,TP,7.3x4.8x5.5m	
....4	C607	2305-000411	C-FILM,MPEF;470nF,5%,50V,TP,7.3x4.8x5.5m	
....4	C608	2401-000660	C-AL;2.2uF,20%,50V,GP,TP,5x11,5	
....4	C609	2401-000660	C-AL;2.2uF,20%,50V,GP,TP,5x11,5	
....4	C610	2301-000356	C-FILM,PEF;47nF,5%,50V,TP,7.5x4.0x6.5,5m	
....4	C611	2301-000356	C-FILM,PEF;47nF,5%,50V,TP,7.5x4.0x6.5,5m	
....4	C612	2301-000356	C-FILM,PEF;47nF,5%,50V,TP,7.5x4.0x6.5,5m	
....4	C613	2301-000356	C-FILM,PEF;47nF,5%,50V,TP,7.5x4.0x6.5,5m	
....4	C614	2301-000232	C-FILM,PEF;3.3nF,5%,50V,TP,8.1x4.5x13mm,	
....4	C615	2301-000232	C-FILM,PEF;3.3nF,5%,50V,TP,8.1x4.5x13mm,	
....4	C616	2401-000050	C-AL;10uF,20%,16V,GP,TP,5x11,2.5	
....4	C617	2401-000913	C-AL;22uF,20%,16V,GP,TP,5x11,5	
....4	C618	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
....4	C619	2401-000050	C-AL;10uF,20%,16V,GP,TP,5x11,2.5	
....4	C620	2401-000050	C-AL;10uF,20%,16V,GP,TP,5x11,2.5	
....4	C621	2305-000411	C-FILM,MPEF;470nF,5%,50V,TP,7.3x4.8x5.5m	
....4	C703	2401-002463	C-AL;470uF,20%,16V,GP,TP,8x11.5,5	
....4	C704	2401-002463	C-AL;470uF,20%,16V,GP,TP,8x11.5,5	
....4	C705	2401-000025	C-AL;100uF,20%,16V,GP,TP,6.3x11,5	
....4	C710	2401-002463	C-AL;470uF,20%,16V,GP,TP,8x11.5,5	
....4	C711	2401-000603	C-AL;1uF,20%,50V,GP,TP,5x11,5	
....4	C712	2202-000127	C-CERAMIC,MLC-AXIAL;10nF,+80-20%,25V,Y5V	
....4	C901	2401-003102	C-AL;100uF,20%,10V,GP,TP,5x11,5	
....4	C902	2202-000807	C-CERAMIC,MLC-AXIAL;22nF,+80-20%,25V,Y5V	
....4	C903	2401-000050	C-AL;10uF,20%,16V,GP,TP,5x11,2.5	
....4	C904	2305-000412	C-FILM,MPEF;470nF,5%,63V,TP,-,5mm	
....4	C905	2202-000279	C-CERAMIC,MLC-AXIAL;47pF,5%,50V,SL,TP,3.	
....4	C906	2202-000279	C-CERAMIC,MLC-AXIAL;47pF,5%,50V,SL,TP,3.	
....4	C907	2401-003102	C-AL;100uF,20%,10V,GP,TP,5x11,5	
....4	C908	2202-000807	C-CERAMIC,MLC-AXIAL;22nF,+80-20%,25V,Y5V	
....4	C909	2401-000050	C-AL;10uF,20%,16V,GP,TP,5x11,2.5	
....4	C910	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
....4	C911	2401-002619	C-AL;47uF,20%,25V,GP,TP,5x11,5	
....4	C912	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
....4	C913	2305-000289	C-FILM,MPEF;220nF,5%,63V,TP,-,5mm	
....4	C914	2306-000122	C-FILM,MPPF;100nF,5%,50V,TP,7.3x4.0x5.0m	
....4	C915	2305-000289	C-FILM,MPEF;220nF,5%,63V,TP,-,5mm	
....4	CM101	2401-000590	C-AL;1uF,20%,50V,GP,TP,3x5,5	
....4	CM102	2401-002291	C-AL;47uF,20%,16V,GP,TP,6.3x5,5	
....4	CM103	2202-000632	C-CERAMIC,MLC-AXIAL;100nF,20%,50V,Z5U,TP	
....4	CM104	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
....4	CM105	2401-002619	C-AL;47uF,20%,25V,GP,TP,5x11,5	
....4	CM108	2401-002291	C-AL;47uF,20%,16V,GP,TP,6.3x5,5	
....4	CM109	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
....4	CM301	2202-000632	C-CERAMIC,MLC-AXIAL;100nF,20%,50V,Z5U,TP	
....4	CM302	2401-002291	C-AL;47uF,20%,16V,GP,TP,6.3x5,5	
....4	CM303	2202-000632	C-CERAMIC,MLC-AXIAL;100nF,20%,50V,Z5U,TP	
....4	CM304	2401-000922	C-AL;22uF,20%,16V,GP,TP,5x5,5	

Loc. No.	Code No.	Description ; Specification	Remark
....4	CM305	2301-000254	C-FILM,PEF;39nF,5%,50V,TP,7.5x3.5x6.5mm,
....4	CM306	2301-000160	C-FILM,PEF;12nF,5%,50V,TP,11.0x6.0x9.0mm
....4	CM307	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5
....4	CM308	2301-000301	C-FILM,PEF;6.8nF,5%,50V,TP,6.5X5.5X3.0X5
....4	CM311	2401-002069	C-AL;33uF,20%,16V,GP,TP,6.3x5,5
....4	CM312	2306-000122	C-FILM,MPPF;100nF,5%,50V,TP,7.3x4.0x5.0m
....4	CM313	2301-000314	C-FILM,PEF;8.2nF,5%,50V,TP,6.5x3.0x5.5mm
....4	CM314	2301-000383	C-FILM,PEF;10nF,5%,50V,TP,6x7x3.2mm,5mm
....4	CM315	2401-000426	C-AL;10uF,20%,16V,GP,TP,3.5x5,5
....4	CM316	2401-000590	C-AL;1uF,20%,50V,GP,TP,3x5,5
....4	CM317	2301-000342	C-FILM,PEF;2.2nF,5%,50V,TP,7.4x3.9x13mm,
....4	CM318	2201-000863	C-CERAMIC,DISC;0.68nF,10%,50V,Y5P,TP,5x3
....4	CM319	2401-001250	C-AL;4.7uF,20%,35V,GP,TP,4x5,5
....4	CM320	2301-000314	C-FILM,PEF;8.2nF,5%,50V,TP,6.5x3.0x5.5mm
....4	CM321	2301-000301	C-FILM,PEF;6.8nF,5%,50V,TP,6.5X5.5X3.0X5
....4	CM322	2301-000383	C-FILM,PEF;10nF,5%,50V,TP,6x7x3.2mm,5mm
....4	CM331	2301-000383	C-FILM,PEF;10nF,5%,50V,TP,6x7x3.2mm,5mm
....4	CM332	2301-000383	C-FILM,PEF;10nF,5%,50V,TP,6x7x3.2mm,5mm
....4	CM333	2202-000127	C-CERAMIC,MLC-AXIAL;10nF,+80-20%,25V,Y5V
....4	CM334	2401-000590	C-AL;1uF,20%,50V,GP,TP,3x5,5
....4	CM335	2201-000262	C-CERAMIC,DISC;0.18nF,10%,50V,Y5P,TP,4x3
....4	CM336	2401-000590	C-AL;1uF,20%,50V,GP,TP,3x5,5
....4	CM337	2201-000262	C-CERAMIC,DISC;0.18nF,10%,50V,Y5P,TP,4x3
....4	CM338	2401-002291	C-AL;47uF,20%,16V,GP,TP,6.3x5,5
....4	CM339	2202-000632	C-CERAMIC,MLC-AXIAL;100nF,20%,50V,Z5U,TP
....4	CM340	2401-000590	C-AL;1uF,20%,50V,GP,TP,3x5,5
....4	CM341	2401-000922	C-AL;22uF,20%,16V,GP,TP,5x5,5
....4	CM342	2401-000590	C-AL;1uF,20%,50V,GP,TP,3x5,5
....4	CM343	2401-000426	C-AL;10uF,20%,16V,GP,TP,3.5x5,5
....4	CM344	2202-000632	C-CERAMIC,MLC-AXIAL;100nF,20%,50V,Z5U,TP
....4	CM345	2401-000426	C-AL;10uF,20%,16V,GP,TP,3.5x5,5
....4	CM346	2401-000590	C-AL;1uF,20%,50V,GP,TP,3x5,5
....4	CM347	2401-000590	C-AL;1uF,20%,50V,GP,TP,3x5,5
....4	CM348	2401-000590	C-AL;1uF,20%,50V,GP,TP,3x5,5
....4	CM349	2401-000590	C-AL;1uF,20%,50V,GP,TP,3x5,5
....4	CM350	2202-000286	C-CERAMIC,MLC-AXIAL;56pF,5%,50V,SL,TP,1.
....4	CM351	2202-000127	C-CERAMIC,MLC-AXIAL;10nF,+80-20%,25V,Y5V
....4	CM352	2201-000262	C-CERAMIC,DISC;0.18nF,10%,50V,Y5P,TP,4x3
....4	CM353	2401-002291	C-AL;47uF,20%,16V,GP,TP,6.3x5,5
....4	CM354	2202-000127	C-CERAMIC,MLC-AXIAL;10nF,+80-20%,25V,Y5V
....4	CM355	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V
....4	CM356	2401-002291	C-AL;47uF,20%,16V,GP,TP,6.3x5,5
....4	CM357	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V
....4	CM358	2401-000590	C-AL;1uF,20%,50V,GP,TP,3x5,5
....4	CM359	2401-000590	C-AL;1uF,20%,50V,GP,TP,3x5,5
....4	CM360	2401-000590	C-AL;1uF,20%,50V,GP,TP,3x5,5
....4	CM361	2202-000127	C-CERAMIC,MLC-AXIAL;10nF,+80-20%,25V,Y5V
....4	CM362	2202-000807	C-CERAMIC,MLC-AXIAL;22nF,+80-20%,25V,Y5V
....4	CM363	2202-000632	C-CERAMIC,MLC-AXIAL;100nF,20%,50V,Z5U,TP
....4	CM364	2202-000632	C-CERAMIC,MLC-AXIAL;100nF,20%,50V,Z5U,TP
....4	CM365	2401-002291	C-AL;47uF,20%,16V,GP,TP,6.3x5,5
....4	CM366	2202-000796	C-CERAMIC,MLC-AXIAL;1NF,10%,50V,Y5P,TP,3
....4	CM367	2301-000356	C-FILM,PEF;47nF,5%,50V,TP,7.5x4.0x6.5,5m
....4	CM368	2301-000356	C-FILM,PEF;47nF,5%,50V,TP,7.5x4.0x6.5,5m
....4	CM369	2301-000356	C-FILM,PEF;47nF,5%,50V,TP,7.5x4.0x6.5,5m
....4	CM370	2401-002594	C-AL;220uF,20%,16V,GP,TP,8x11.5,5
....4	CM501	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V
....4	CM502	2401-000426	C-AL;10uF,20%,16V,GP,TP,3.5x5,5
....4	CM503	2401-002299	C-AL;4.7uF,20%,50V,GP,TP,5x7,5
....4	CM504	2401-000050	C-AL;10uF,20%,16V,GP,TP,5x11,2.5
....4	CM505	2401-002299	C-AL;4.7uF,20%,50V,GP,TP,5x7,5
....4	CM506	2401-000590	C-AL;1uF,20%,50V,GP,TP,3x5,5
....4	CM507	2401-002069	C-AL;33uF,20%,16V,GP,TP,6.3x5,5
....4	CM508	2401-000426	C-AL;10uF,20%,16V,GP,TP,3.5x5,5
....4	CM509	2401-000426	C-AL;10uF,20%,16V,GP,TP,3.5x5,5
....4	CM510	2301-000224	C-FILM,PEF;22nF,5%,50V,TP,7.4x3.9x13mm,5
....4	CM511	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V
....4	CM512	2301-000104	C-FILM,PEF;1.2NF,5%,50V,TP,6.5X3.0X5.5MM
....4	CM513	2202-000127	C-CERAMIC,MLC-AXIAL;10nF,+80-20%,25V,Y5V
....4	CM514	2202-000127	C-CERAMIC,MLC-AXIAL;10nF,+80-20%,25V,Y5V
....4	CM515	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V
....4	CM516	2401-002291	C-AL;47uF,20%,16V,GP,TP,6.3x5,5
....4	CM517	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V
....4	CM518	2401-000590	C-AL;1uF,20%,50V,GP,TP,3x5,5
....4	CM519	2401-000753	C-AL;220nF,20%,50V,GP,TP,3x5,5
....4	CM520	2202-000807	C-CERAMIC,MLC-AXIAL;22nF,+80-20%,25V,Y5V
....4	CM521	2401-000426	C-AL;10uF,20%,16V,GP,TP,3.5x5,5
....4	CM522	2401-000426	C-AL;10uF,20%,16V,GP,TP,3.5x5,5
....4	CM523	2401-002069	C-AL;33uF,20%,16V,GP,TP,6.3x5,5
....4	CM524	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5
....4	CM525	2401-000753	C-AL;220nF,20%,50V,GP,TP,3x5,5
....4	CM526	2401-001026	C-AL;3.3UF,20%,50V,GP,TP,5X11,5
....4	CM527	2305-000665	C-FILM,MPEF;100nF,5%,63V,TP,7.5x4.0x5.0m
....4	CM528	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V
....4	CM529	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V
....4	CM530	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V
....4	CM531	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5
....4	CM532	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V
....4	CM533	2401-000660	C-AL;2.2uF,20%,50V,GP,TP,5x11,5
....4	CM534	2401-000050	C-AL;10uF,20%,16V,GP,TP,5x11,2.5
....4	CM535	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V
....4	CM536	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5
....4	CM537	2401-000050	C-AL;10uF,20%,16V,GP,TP,5x11,2.5
....4	CM538	2301-000224	C-FILM,PEF;22nF,5%,50V,TP,7.4x3.9x13mm,5
....4	CM539	2401-000426	C-AL;10uF,20%,16V,GP,TP,3.5x5,5
....4	CM540	2401-000050	C-AL;10uF,20%,16V,GP,TP,5x11,2.5
....4	CM541	2202-000183	C-CERAMIC,MLC-AXIAL;2.2NF,20%,16V,Y5R,TP
....4	CM542	2202-000183	C-CERAMIC,MLC-AXIAL;2.2NF,20%,16V,Y5R,TP
....4	CM543	2401-002009	C-AL;100uF,20%,16V,GP,TP,6.3x7,5
....4	CM601	2202-000127	C-CERAMIC,MLC-AXIAL;10nF,+80-20%,25V,Y5V
....4	CM603	2301-000310	C-FILM,PEF;68nF,5%,50V,TP,8.0X8.5X4.0X5,
....4	CM604	2301-000232	C-FILM,PEF;3.3nF,5%,50V,TP,8.1x4.5x13mm,
....4	CM606	2202-000632	C-CERAMIC,MLC-AXIAL;100nF,20%,50V,Z5U,TP
....4	CM609	2202-000205	C-CERAMIC,MLC-AXIAL;22pF,5%,50V,SL,TP,1.
....4	CM610	2202-000205	C-CERAMIC,MLC-AXIAL;22pF,5%,50V,SL,TP,1.
....4	CM611	2401-001250	C-AL;4.7uF,20%,35V,GP,TP,4x5,5
....4	CM612	2202-000127	C-CERAMIC,MLC-AXIAL;10nF,+80-20%,25V,Y5V
....4	CM613	2202-000632	C-CERAMIC,MLC-AXIAL;100nF,20%,50V,Z5U,TP
....4	CM614	2401-002291	C-AL;47uF,20%,16V,GP,TP,6.3x5,5
....4	CM615	2202-000632	C-CERAMIC,MLC-AXIAL;100nF,20%,50V,Z5U,TP
....4	CM616	2401-000302	C-AL;100uF,20%,25V,GP,TP,6.3x11,5
....4	CM617	2202-000127	C-CERAMIC,MLC-AXIAL;10nF,+80-20%,25V,Y5V
....4	CM620	2202-000807	C-CERAMIC,MLC-AXIAL;22nF,+80-20%,25V,Y5V
....4	CM621	2202-000127	C-CERAMIC,MLC-AXIAL;10nF,+80-20%,25V,Y5V
....4	CM622	2401-002463	C-AL;470uF,20%,16V,GP,TP,8x11.5,5
....4	CM623	2301-000310	C-FILM,PEF;68nF,5%,50V,TP,8.0X8.5X4.0X5,
....4	CM625	2202-000632	C-CERAMIC,MLC-AXIAL;100nF,20%,50V,Z5U,TP
....4	CM628	2202-000632	C-CERAMIC,MLC-AXIAL;100nF,20%,50V,Z5U,TP
....4	CM629	2202-000632	C-CERAMIC,MLC-AXIAL;100nF,20%,50V,Z5U,TP
....4	CM630	2202-000127	C-CERAMIC,MLC-AXIAL;10nF,+80-20%,25V,Y5V
....4	CM631	2202-000127	C-CERAMIC,MLC-AXIAL;10nF,+80-20%,25V,Y5V
....4	CM632	2202-000183	C-CERAMIC,MLC-AXIAL;2.2NF,20%,16V,Y5R,TP
....4	CM633	2202-000183	C-CERAMIC,MLC-AXIAL;2.2NF,20%,16V,Y5R,TP
....4	CM634	2202-000263	C-CERAMIC,MLC-AXIAL;470pF,10%,50V,Y5P,TP
....4	CM635	2401-001250	C-AL;4.7uF,20%,35V,GP,TP,4x5,5
....4	CM636	2202-000121	C-CERAMIC,MLC-AXIAL;100pF,10%,50V,Y5P,TP
....4	CM637	2401-002009	C-AL;100uF,20%,16V,GP,TP,6.3x7,5
....4	CM638	2202-000632	C-CERAMIC,MLC-AXIAL;100nF,20%,50V,Z5U,TP
....4	CM639	2401-002291	C-AL;47uF,20%,16V,GP,TP,6.3x5,5
....4	CM640	2202-000806	C-CERAMIC,MLC-AXIAL;220pF,10%,50V,Y5P,TP
....4	CM642	2202-000632	C-CERAMIC,MLC-AXIAL;100nF,20%,50V,Z5U,TP
....4	CM643	2305-000289	C-FILM,MPEF;220nF,5%,63V,TP,-,5mm
....4	CM644	2202-000127	C-CERAMIC,MLC-AXIAL;10nF,+80-20%,25V,Y5V
....4	CM645	2202-000718	C-CERAMIC,MLC-AXIAL;3.9nF,20%,16V,Y5R,TP
....4	CM646	2202-000718	C-CERAMIC,MLC-AXIAL;3.9nF,20%,16V,Y5R,TP
....4	CM647	2202-000807	C-CERAMIC,MLC-AXIAL;22nF,+80-20%,25V,Y5V
....4	CM648	2202-000807	C-CERAMIC,MLC-AXIAL;22nF,+80-20%,25V,Y5V
....4	CM649	2202-000807	C-CERAMIC,MLC-AXIAL;22nF,+80-20%,25V,Y5V
....4	CM659	2202-000796	C-CERAMIC,MLC-AXIAL;1NF,10%,50V,Y5P,TP,3
....4	CM660	2202-000796	C-CERAMIC,MLC-AXIAL;1NF,10%,50V,Y5P,TP,3
....4	CM701	2202-000632	C-CERAMIC,MLC-AXIAL;100nF,20%,50V,Z5U,TP
....4	CM702	2401-000025	C-AL;100uF,20%,16V,GP,TP,6.3x11,5
....4	D101	0402-000132	DIODE-RECTIFIER;1N4004,400V,1A,DO-41,TP
....4	D102	0401-000005	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,
....4	D201	0401-000005	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,
....4	D901	0401-000005	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,
....4	D902	0402-000132	DIODE-RECTIFIER;1N4004,400V,1A,DO-41,TP
....4	DM101	0402-000132	DIODE-RECTIFIER;1N4004,400V,1A,DO-41,TP
....4	DM102	0402-000132	DIODE-RECTIFIER;1N4004,400V,1A,DO-41,TP
....4	DM103	0401-000005	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,
....4	DM104	0401-000005	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,
....4	DM105	0401-000005	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,
....4	DM106	0402-000132	DIODE-RECTIFIER;1N4004,400V,1A,DO-41,TP
....4	DM501	0401-000005	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,

Loc. No.	Code No.	Description ; Specification	Remark
....4 DM601	0401-000005	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
....4 DM605	0401-000005	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
....4 DM606	0401-000005	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
....4 DZ102	0403-001373	DIODE-ZENER;MTZJ5.1A,4.81V-5.07V,500mW,D	
....4 DZ601	0403-000719	DIODE-ZENER;MTZJ7.5B,7.5V,7.07-7.45V,500	
....4 DZ602	0403-000719	DIODE-ZENER;MTZJ7.5B,7.5V,7.07-7.45V,500	
....4 DZ701	0403-000508	DIODE-ZENER;MTZJ5.6B,5.6V,5.45-5.73V,500	
....4 DZ901	0403-001317	DIODE-ZENER;MTZJ3.0B,3.01-3.22V,500mW,DO	
....4 DZM101	0403-001211	DIODE-ZENER;MTZJ12B,11.44-12.03V,500MW,D	
....4 DZM102	0403-001373	DIODE-ZENER;MTZJ5.1A,4.81V-5.07V,500mW,D	
....4 DZM103	0403-000720	DIODE-ZENER;MTZJ9.1B,9.1V,8.57-9.01V,500	
....4 DZM701	0403-000508	DIODE-ZENER;MTZJ5.6B,5.6V,5.45-5.73V,500	
....4 EY01	AA60-40011A	K EYELET;ID2.0,OD2.8,BST	
....4 EY02	AA60-40011A	K EYELET;ID2.0,OD2.8,BST	
....4 EY03	AA60-40011A	K EYELET;ID2.0,OD2.8,BST	
....4 EY04	AA60-40011A	K EYELET;ID2.0,OD2.8,BST	
....4 EY05	AA60-40011A	K EYELET;ID2.0,OD2.8,BST	
....4 GT001	AA60-40014A	PIN-GT,ASSY;AUTO	
....4 GT002	AA60-40014A	PIN-GT,ASSY;AUTO	
....4 GT003	AA60-40014A	PIN-GT,ASSY;AUTO	
....4 ICM605	1203-000642	IC-RESET;572,TO-92,3P,-,PLASTIC,2.35/2.	
....4 L102	2701-000114	INDUCTOR-AXIAL;10uH,10%,2.5x3.4mm	
....4 L201	2701-000114	INDUCTOR-AXIAL;10uH,10%,2.5x3.4mm	
....4 L202	2701-000114	INDUCTOR-AXIAL;10uH,10%,2.5x3.4mm	
....4 L203	2701-000114	INDUCTOR-AXIAL;10uH,10%,2.5x3.4mm	
....4 L601	2701-000114	INDUCTOR-AXIAL;10uH,10%,2.5x3.4mm	
....4 L901	2701-000114	INDUCTOR-AXIAL;10uH,10%,2.5x3.4mm	
....4 L902	2701-000114	INDUCTOR-AXIAL;10uH,10%,2.5x3.4mm	
....4 L904	2701-000114	INDUCTOR-AXIAL;10uH,10%,2.5x3.4mm	
....4 LM101	2701-000002	INDUCTOR-AXIAL;100uH,10%,4.2x9.8mm	
....4 LM301	2701-000112	INDUCTOR-AXIAL;100uH,10%,3x7mm	
....4 LM302	2701-000002	INDUCTOR-AXIAL;100uH,10%,4.2x9.8mm	
....4 LM303	2702-000120	INDUCTOR-RADIAL;15mH,5%,6.2x7.4mm	
....4 LM304	2701-000002	INDUCTOR-AXIAL;100uH,10%,4.2x9.8mm	
....4 LM305	2701-000002	INDUCTOR-AXIAL;100uH,10%,4.2x9.8mm	
....4 LM306	2701-000112	INDUCTOR-AXIAL;100uH,10%,3x7mm	
....4 LM307	2701-000002	INDUCTOR-AXIAL;100uH,10%,4.2x9.8mm	
....4 LM501	2701-000123	INDUCTOR-AXIAL;150uH,10%,2.5x3.4mm	
....4 LM502	2701-000112	INDUCTOR-AXIAL;100uH,10%,3x7mm	
....4 LM503	2701-000112	INDUCTOR-AXIAL;100uH,10%,3x7mm	
....4 LM504	2701-000112	INDUCTOR-AXIAL;100uH,10%,3x7mm	
....4 LM601	2701-000002	INDUCTOR-AXIAL;100uH,10%,4.2x9.8mm	
....4 LM602	2701-000002	INDUCTOR-AXIAL;100uH,10%,4.2x9.8mm	
....4 LM604	2701-000115	INDUCTOR-AXIAL;10uH,10%,3x7mm	
....4 LM605	2701-000115	INDUCTOR-AXIAL;10uH,10%,3x7mm	
....4 Q203	0501-000283	TR-SMALL SIGNAL;KSA539,PNP,400mW,TO-92,T	
....4 Q701	0501-000283	TR-SMALL SIGNAL;KSA539,PNP,400mW,TO-92,T	
....4 Q702	0501-000283	TR-SMALL SIGNAL;KSA539,PNP,400mW,TO-92,T	
....4 Q703	0501-000283	TR-SMALL SIGNAL;KSA539,PNP,400mW,TO-92,T	
....4 Q901	0501-000362	TR-SMALL SIGNAL;KSA2328A-Y,NPN,1W,TO-92L	
....4 QM101	0501-000362	TR-SMALL SIGNAL;KSA2328A-Y,NPN,1W,TO-92L	
....4 QM102	0504-000142	TR-DIGITAL;KSR2001,PNP,300MW,4.7K/4.7K,T	
....4 QM103	0504-000118	TR-DIGITAL;KSR1003,NPN,300MW,22K/22K,TO-	
....4 QM104	0501-000362	TR-SMALL SIGNAL;KSA2328A-Y,NPN,1W,TO-92L	
....4 QM105	0501-000362	TR-SMALL SIGNAL;KSA2328A-Y,NPN,1W,TO-92L	
....4 QM301	0501-000442	TR-SMALL SIGNAL;KTC3203-Y,NPN,400mW,T0-9	
....4 QM302	0501-000442	TR-SMALL SIGNAL;KTC3203-Y,NPN,400mW,T0-9	
....4 QM303	0501-000303	TR-SMALL SIGNAL;KSA733,PNP,250mW,TO-92,T	
....4 QM304	0501-000010	TR-SMALL SIGNAL;KSC1008,NPN,800mW,TO-92,	
....4 QM305	0501-000303	TR-SMALL SIGNAL;KSA733,PNP,250mW,TO-92,T	
....4 QM306	0501-000398	TR-SMALL SIGNAL;KSC945,NPN,250mW,TO-92,T	
....4 QM307	0501-000303	TR-SMALL SIGNAL;KSA733,PNP,250mW,TO-92,T	
....4 QM308	0501-000303	TR-SMALL SIGNAL;KSA733,PNP,250mW,TO-92,T	
....4 QM701	0504-000118	TR-DIGITAL;KSR1003,NPN,300MW,22K/22K,TO-	
....4 QM702	0504-000118	TR-DIGITAL;KSR1003,NPN,300MW,22K/22K,TO-	
....4 QM703	0504-000118	TR-DIGITAL;KSR1003,NPN,300MW,22K/22K,TO-	
....4 R101	2001-000864	R-CARBON;56KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R102	2001-000490	R-CARBON;200OHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R103	2001-000702	R-CARBON;39KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R104	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R105	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R106	2001-000554	R-CARBON;270OHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R107	2003-000493	R-METAL OXIDE(S);12ohm,5%,2W,AF,TP,4x12m	
....4 R201	2001-001195	R-CARBON(S);82OHM,5%,1/2W,AA,TP,2.4X6.4M	
....4 R211	2001-000522	R-CARBON;22KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R215	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R216	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	

Loc. No.	Code No.	Description ; Specification	Remark
....4 R217	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R218	2001-000702	R-CARBON;39KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R219	2001-000563	R-CARBON;27KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R220	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R221	2001-000273	R-CARBON;100KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R222	2001-000563	R-CARBON;27KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R223	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R225	2001-000591	R-CARBON;3.3KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R226	2001-000969	R-CARBON;750HM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R227	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R228	2001-000969	R-CARBON;750HM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R229	2001-000969	R-CARBON;750HM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R230	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R231	2001-000515	R-CARBON;220OHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R232	2001-000645	R-CARBON;330KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R233	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R234	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R235	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R236	2001-000850	R-CARBON;560KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R238	2001-000938	R-CARBON;68OHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R240	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R515	2001-000472	R-CARBON;2.7KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R601	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R602	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R603	2001-000812	R-CARBON;5.6KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R604	2001-000812	R-CARBON;5.6KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R605	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R606	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R701	2001-001088	R-CARBON(S);1KOHM,5%,1/2W,AA,TP,2.4X6.4M	
....4 R702	2001-001088	R-CARBON(S);1KOHM,5%,1/2W,AA,TP,2.4X6.4M	
....4 R706	2001-000969	R-CARBON;750HM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R707	2001-000037	R-CARBON(S);330OHM,5%,1/2W,AA,TP,2.4X6.4	
....4 R708	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R709	2001-000969	R-CARBON;750HM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R711	2001-000515	R-CARBON;220OHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R712	2003-001090	R-METAL OXIDE(S);10Kohm,5%,2W,AF,TP,4x12	
....4 R713	2003-001090	R-METAL OXIDE(S);10Kohm,5%,2W,AF,TP,4x12	
....4 R901	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R902	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R903	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R904	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R905	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R906	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R907	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R908	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R909	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R910	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R911	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R912	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R913	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R914	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R915	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R916	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R917	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R918	2001-000449	R-CARBON;2.2KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R919	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R920	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R921	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R922	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R923	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R924	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R926	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R927	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R928	2001-000449	R-CARBON;2.2KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R929	2001-000449	R-CARBON;2.2KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R930	2001-000449	R-CARBON;2.2KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R931	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R932	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R933	2001-000490	R-CARBON;200OHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R934	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R935	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R936	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM101	2001-000109	R-CARBON(S);470OHM,5%,1/2W,AA,TP,2.4X6.4	
....4 RM102	2001-000449	R-CARBON;2.2KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM103	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM104	2001-001107	R-CARBON(S);220ohm,5%,1/2W,AA,TP,2.4x6.4	
....4 RM106	2001-001077	R-CARBON(S);150OHM,5%,1/2W,AA,TP,2.4X6.4	

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....4 RM301	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM302	2001-000522	R-CARBON;22KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM303	2001-000458	R-CARBON;2.2OHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM304	2001-000563	R-CARBON;27KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM305	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM306	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM307	2001-000780	R-CARBON;470OHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM308	2001-000405	R-CARBON;180OHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM309	2001-000258	R-CARBON;1.8KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM310	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM311	2001-000221	R-CARBON;1.2KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM312	2001-000812	R-CARBON;5.6KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM313	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM314	2001-000645	R-CARBON;330KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM315	2001-000362	R-CARBON;150OHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM316	2001-000563	R-CARBON;27KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM317	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM318	2001-000221	R-CARBON;1.2KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM319	2001-000766	R-CARBON;43KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM320	2001-000522	R-CARBON;22KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM322	2001-000780	R-CARBON;470OHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM323	2001-000008	R-CARBON;15KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM331	2001-000832	R-CARBON;510OHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM332	2001-000832	R-CARBON;510OHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM334	2001-000008	R-CARBON;15KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM335	2001-000878	R-CARBON;6.2KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM336	2001-000258	R-CARBON;1.8KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM338	2001-000258	R-CARBON;1.8KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM339	2001-000780	R-CARBON;470OHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM340	2001-000241	R-CARBON;1.5KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM341	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM342	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM343	2001-000508	R-CARBON;220KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM344	2001-000004	R-CARBON;200KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM345	2001-000449	R-CARBON;2.2KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM346	2001-000012	R-CARBON;680KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM347	2001-000221	R-CARBON;1.2KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM348	2001-000241	R-CARBON;1.5KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM349	2001-000258	R-CARBON;1.8KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM350	2001-000977	R-CARBON;8.2KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM351	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM352	2001-000411	R-CARBON;18KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM353	2001-000411	R-CARBON;18KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM354	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM355	2001-001108	R-CARBON(S);22KOHM,5%,1/2W,AA,TP,2.4X6.4	
....4 RM356	2001-001114	R-CARBON(S);270OHM,5%,1/2W,AA,TP,2.4X6.4	
....4 RM357	2001-000969	R-CARBON;75OHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM359	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM360	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM361	2001-000554	R-CARBON;270OHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM501	2001-000977	R-CARBON;8.2KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM502	2001-000786	R-CARBON;47KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM503	2001-000786	R-CARBON;47KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM504	2001-000977	R-CARBON;8.2KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM505	2004-000500	R-METAL;2.7Kohm,1%,1/8W,AA,TP,1.8x3.2m	
....4 RM506	2001-000472	R-CARBON;2.7KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM507	2001-000660	R-CARBON;33KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM508	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM509	2001-000878	R-CARBON;6.2KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM510	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM511	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM512	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM513	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM514	2001-000679	R-CARBON;36KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM515	2001-000347	R-CARBON;13KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM516	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM601	2001-000554	R-CARBON;270OHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM602	2001-000522	R-CARBON;22KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM603	2001-000554	R-CARBON;270OHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM604	2001-000522	R-CARBON;22KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM605	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM606	2001-000850	R-CARBON;560KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM607	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM608	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM609	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM610	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM611	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	

Loc. No.	Code No.	Description ; Specification	Remark
....4 RM612	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM613	2001-000864	R-CARBON;56KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM614	2001-000864	R-CARBON;56KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM615	2001-000786	R-CARBON;47KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM617	2001-000660	R-CARBON;33KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM618	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM619	2008-000253	R-FUSIBLE(S);0.47ohm,5%,1W,AF,TP,3.9x10m	
....4 RM621	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM622	2001-000010	R-CARBON;68KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM625	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM626	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM627	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM628	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM629	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM630	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM632	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM633	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM634	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM635	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM636	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM637	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM638	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM639	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM640	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM641	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM642	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM643	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM644	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM645	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM646	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM647	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM648	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM649	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM650	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM651	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM652	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM653	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM654	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM655	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM656	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM658	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM659	2001-000832	R-CARBON;510OHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM664	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM665	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM666	2001-000522	R-CARBON;22KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM667	2001-000118	R-CARBON(S);180OHM,5%,1/2W,AA,TP,2.4X6.4	
....4 RM668	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM669	2001-000515	R-CARBON;220OHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM670	2001-000515	R-CARBON;220OHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM671	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM674	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM678	2001-000633	R-CARBON;30KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM679	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM680	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM681	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM682	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM683	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM684	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM686	2001-000273	R-CARBON;100KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM687	2001-000864	R-CARBON;56KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM688	2001-000613	R-CARBON;3.9KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM689	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RM701	2001-001077	R-CARBON(S);150OHM,5%,1/2W,AA,TP,2.4X6.4	
....4 RM702	2001-001077	R-CARBON(S);150OHM,5%,1/2W,AA,TP,2.4X6.4	
....4 RM703	2001-001077	R-CARBON(S);150OHM,5%,1/2W,AA,TP,2.4X6.4	
....4 RM704	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 SWM701	3404-000244	SWITCH-TACT;15V,20mA,90-170gf,7.5x7mm,SP	
....4 SWM702	3404-000244	SWITCH-TACT;15V,20mA,90-170gf,7.5x7mm,SP	
....4 SWM703	3404-000244	SWITCH-TACT;15V,20mA,90-170gf,7.5x7mm,SP	
....4 SWM704	3404-000244	SWITCH-TACT;15V,20mA,90-170gf,7.5x7mm,SP	
....4 SWM705	3404-000244	SWITCH-TACT;15V,20mA,90-170gf,7.5x7mm,SP	
....4 SWM706	3404-000244	SWITCH-TACT;15V,20mA,90-170gf,7.5x7mm,SP	
....4 SWM707	3404-000244	SWITCH-TACT;15V,20mA,90-170gf,7.5x7mm,SP	
....4 SWM708	3404-000244	SWITCH-TACT;15V,20mA,90-170gf,7.5x7mm,SP	
....4 SWM709	3404-000244	SWITCH-TACT;15V,20mA,90-170gf,7.5x7mm,SP	
....4 SWM710	3404-000244	SWITCH-TACT;15V,20mA,90-170gf,7.5x7mm,SP	
....4 T101	2903-000135	FILTER-CERAMIC;BP,4.5MHz,120KHz,6dB,-,TP	

Loc. No.	Code No.	Description ; Specification	Remark
....4 XT901	2801-003433	CRYSTAL-UNIT;12MHZ,30PPM,28-AAM,30PF,30O	
....4 XTM301	2801-003610	CRYSTAL-UNIT;3.579545MHz,8ppm,28-AAA,S,1	
....4 XTM601	2801-003750	CRYSTAL-UNIT;8MHZ,30PPM,28-AAA,22PF,80OH	
....4	AA97-12866A	ASSY SMD-MAIN;,V18B	
.....5 IC601	1204-001465	IC-VOLUME/TONE CONT.;TDA7440D,SOP,28,18.	
.....5 IC902	AA09-00242A	IC MICOM;TDA9395-OTP, ,80,3.3V&8V,12MHZ,	
.....5 ICM301	1204-001952	IC-VIDEO PROCESS;LA71207,QFP,80P,14X14MM	
.....5 ICM501	1204-001754	IC-SIGNAL PROCESSOR;AN3663FBP,QFP,64P,-,	
.....5 ICM601	AA09-00314A	IC MICOM;UPD784927GF-236-3BA,SNM-646MD,1	
.....5	AA41-00794A	PCB-MAIN;TORNADOII,FR-1,1L,A,1.6T,330X24	
...3	AA65-00011C	CLAMPER CORE-WIRE;ALL MODEL,NYLON 66,V2,	
...3	3809-001312	CABLE-FLAT;30V,80C,110MM,7P,1.25MM,UL289	
...3	3809-001206	CABLE-FLAT;30V,-20to+80C,140mm,6P,1.25mm	
..2	AA94-11923A	ASSY PCB MISC-A/V;,V18B	
...3 CN705A	3711-003973	CONNECTOR-HEADER;BOX,11P,1R,2.5mm,STRAIG	
...3 CNM711	AA39-00070A	LEAD CONNECTOR-ASSY;,4P,YBNH250-04,35184	
...3 CNM712	AA39-20069A	LEAD CONNECTOR-ASSY;,5P,YBNH025-05,67096	
...3 JAC701	3722-001031	JACK-PIN;3P,3.6mm,#18,AU	
...3	AA97-13522A	ASSY AUTO-A/V;,TORNADO-2(V18B)	
....4 CM50	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5	
....4 CM51	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5	
....4 CM52	2202-000231	C-CERAMIC,MLC-AXIAL;330pF,10%,50V,Y5P,TP	
....4 CM53	2202-000231	C-CERAMIC,MLC-AXIAL;330pF,10%,50V,Y5P,TP	
....4 CM54	2202-000231	C-CERAMIC,MLC-AXIAL;330pF,10%,50V,Y5P,TP	
....4 CM55	2202-000231	C-CERAMIC,MLC-AXIAL;330pF,10%,50V,Y5P,TP	
....4 LM50	2701-000114	INDUCTOR-AXIAL;10uH,10%,2.5x3.4mm	
....4 LM51	2701-000114	INDUCTOR-AXIAL;10uH,10%,2.5x3.4mm	
....4 LM52	3301-000287	CORE-FERRITE BEAD;AA,3.5x1.0x6.0mm,1500,	
....4 LM53	3301-000287	CORE-FERRITE BEAD;AA,3.5x1.0x6.0mm,1500,	
....4 LM54	2701-000114	INDUCTOR-AXIAL;10uH,10%,2.5x3.4mm	
....4 LM55	2701-000114	INDUCTOR-AXIAL;10uH,10%,2.5x3.4mm	
....4 PCB	AA41-00797A	PCB-A/V;TORNADOII,FR-1,1L,A,1.6T,245X245	
....4 RM50	2001-000028	R-CARBON(S);100OHM,5%,1/2W,AA,TP,2.4X6.4	
....4 RM51	2001-000028	R-CARBON(S);100OHM,5%,1/2W,AA,TP,2.4X6.4	
..2	AA94-11922A	ASSY PCB MISC-COMB;,V18B	
...3 CNX01	3711-002708	CONNECTOR-HEADER;NOWALL,10P,1R,2.5mm,ANG	
...3 ICX01	1204-001854	IC-FILTER;TDA9183,DIP,16P,300MIL,PLASTIC	
...3	AA97-12829A	ASSY AUTO;,V18B	
....4 CX01	2305-000196	C-FILM,MPEF;150nF,5%,63V,TP,-,5mm	
....4 CX02	2305-000196	C-FILM,MPEF;150nF,5%,63V,TP,-,5mm	
....4 CX03	2401-000913	C-AL;22uF,20%,16V,GP,TP,5x11,5	
....4 CX04	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
....4 CX05	2202-002037	C-CERAMIC,MLC-AXIAL;100nF,80-20%,50V,Y5V	
....4 CX06	2401-000913	C-AL;22uF,20%,16V,GP,TP,5x11,5	
....4 DZX01	0403-000717	DIODE-ZENER;MTZJ5.1B,5.1V,4.94-5.2V,500m	
....4 LX01	2701-000114	INDUCTOR-AXIAL;10uH,10%,2.5x3.4mm	
....4 LX02	2701-000114	INDUCTOR-AXIAL;10uH,10%,2.5x3.4mm	
....4 PCB	AA41-00796A	PCB-2H COMB;TORNADOII,FR-1,1L,A,1.6T,245	
....4 RX01	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RX02	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
..2	AA94-11889A	ASSY PCB CRT;,V18B	
...3 CN501A	AA39-00339A	LEAD CONNECTOR;V18B/CXM2785TPX,UL1007/11	
...3 CN502A	AA39-20070A	LEAD CONNECTOR-ASSY;,7P,YBNH025-07,67096	
...3 IC501	AA96-50311E	ASSY H/S;-,-,AA62-30175D,TDA6108JF,-	
....4	1201-001330	IC-VIDEO AMP;6108,ZSIP,9P,-,SINGLE,-,PLA	
....4	6003-000334	SCREW-TAPTITE;RH,+,2S,M3,L6,ZPC(YEL),SWR	
....4	AA62-30175D	HEAT SINK-PS;-,SECC,T1.0,-,33X15X30 FT-2	
...3 QF04	AA96-00243L	ASSY H/S;-,CRT,AA62-000450A,2SC2344,HERC	
....4	0205-000129	GREASE-SILICON;SC102,JAPAN	
....4	0502-000153	TR-POWER;2SC2344-D,NPN,1.2W,TO-220,-,60	
....4	6003-000335	SCREW-TAPTITE;RH,+,2S,M3,L8,ZPC(YEL),SWR	
....4	AA62-00045A	HEAT SINK-PS;-,-,T1.0,-,-,DREAM,-,-,-,-,	
...3 QF05	AA96-00243M	ASSY H/S;-,AMP,AA62-000450A,2SA1011,HERC	
....4	0205-000129	GREASE-SILICON;SC102,JAPAN	
....4	0502-000131	TR-POWER;2SA1011-D,PNP,1.2W,TO-220,-,60	
....4	6003-000335	SCREW-TAPTITE;RH,+,2S,M3,L8,ZPC(YEL),SWR	
....4	AA62-00045A	HEAT SINK-PS;-,-,T1.0,-,-,DREAM,-,-,-,-,	
⚠ ...3 V999S	3704-001105	SOCKET-CRT;11P,20PI,26.5PI,NI,-	
...3	AA97-13523A	ASSY AUTO-CRT;,TORNADO-2(V18B)	
....4 C504	2201-000723	C-CERAMIC,DISC;4.7nF,20%,3KV,Y5U,TP,16x5	
....4 C505	2401-000430	C-AL;10uF,20%,250V,GP,TP,10x16mm,5m	
....4 C506	2401-000430	C-AL;10uF,20%,250V,GP,TP,10x16mm,5m	
....4 C507	2301-001259	C-FILM,MPPF;100nF,5%,400V,TP,19x8x16,7.5	
....4 C508	2301-001259	C-FILM,MPPF;100nF,5%,400V,TP,19x8x16,7.5	
....4 C509	2401-000430	C-AL;10uF,20%,250V,GP,TP,10x16mm,5m	
....4 CF01	2401-003728	C-AL;10UF,°æ20%,16V,BP,TP,5X7MM,5	
....4 CF02	2201-000375	C-CERAMIC,DISC;0.22nF,5%,50V,RH,TP,12.5x	

Loc. No.	Code No.	Description ; Specification	Remark
....4 CF04	2201-000653	C-CERAMIC,DISC;0.068nF,5%,50V,SL,TP,5x3,	
....4 CF05	2301-000261	C-FILM,PEF;4.7nF,5%,100V,TP,10.5x12.5x6.	
....4 CF06	2201-000516	C-CERAMIC,DISC;4.7nF,+100-0%,500V,Y5U,TP	
....4 CF07	2305-000009	C-FILM,MPEF;100nF,5%,250V,TP,13x11x6.5,7	
....4 CF08	2201-000604	C-CERAMIC,DISC;0.056nF,+100-0%,500V,SL,T	
....4 CF10	2401-000025	C-AL;100uF,20%,16V,GP,TP,6.3x11,5	
....4 CF12	2401-000025	C-AL;100uF,20%,16V,GP,TP,6.3x11,5	
....4 CF14	2401-002619	C-AL;47uF,20%,25V,GP,TP,5x11,5	
....4 CN503	3711-002643	CONNECTOR-HEADER;BOX,4P,1R,2.5mm,STRAIGH	
....4 CNF01	3711-002642	CONNECTOR-HEADER;BOX,3P,1R,2.5mm,STRAIGH	
....4 D501	0402-000546	DIODE-RECTIFIER;TVR10G,400V,1.0A,DO-41,T	
....4 D502	0402-000546	DIODE-RECTIFIER;TVR10G,400V,1.0A,DO-41,T	
....4 D503	0402-000546	DIODE-RECTIFIER;TVR10G,400V,1.0A,DO-41,T	
....4 D504	0402-000132	DIODE-RECTIFIER;1N4004,400V,1A,DO-41,TP	
....4 DF01	0401-000005	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
....4 DF02	0402-000546	DIODE-RECTIFIER;TVR10G,400V,1.0A,DO-41,T	
....4 DF03	0402-000546	DIODE-RECTIFIER;TVR10G,400V,1.0A,DO-41,T	
....4 DF04	0401-000005	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
....4 DZ501	0403-001322	DIODE-ZENER;MTZJ8.2B,7.78-8.19V,500mW,DO	
....4 EL701	6042-000001	EYELET;ID2.2,OD2.7,L3.1,SN,BSS3-E/EH	
....4 EL702	6042-000001	EYELET;ID2.2,OD2.7,L3.1,SN,BSS3-E/EH	
....4 GT502	AA60-40014A	PIN-GT,ASSY;AUTO	
....4 GT503	AA60-40014A	PIN-GT,ASSY;AUTO	
....4 L501	2701-000002	INDUCTOR-AXIAL;100uH,10%,4.2x9.8mm	
....4 LF02	2901-000297	FILTER-EMI ON BOARD;-,3A,-,-,3.5x5,TP,-	
....4 LF04	2901-000297	FILTER-EMI ON BOARD;-,3A,-,-,3.5x5,TP,-	
....4 LF05	2901-000297	FILTER-EMI ON BOARD;-,3A,-,-,3.5x5,TP,-	
....4 PCB	AA41-00798A	PCB-CRT;TORNADOII,FR-1,1L,A,1.6T,330X245	
....4 QF02	0501-000389	TR-SMALL SIGNAL;KSC815,NPN,400mW,TO-92,T	
....4 QF03	0501-000369	TR-SMALL SIGNAL;KSC2331-Y,NPN,1000mW,TO-	
....4 R501	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R502	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R503	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R504	2001-001102	R-CARBON(S);200OHM,5%,1/2W,AA,TP,2.4X6.4	
....4 R505	2001-001102	R-CARBON(S);200OHM,5%,1/2W,AA,TP,2.4X6.4	
....4 R506	2001-001102	R-CARBON(S);200OHM,5%,1/2W,AA,TP,2.4X6.4	
....4 R507	2002-001017	R-COMPOSITION;1Kohm,10%,1/2W,AA,TP,3.7x9	
....4 R508	2002-001017	R-COMPOSITION;1Kohm,10%,1/2W,AA,TP,3.7x9	
....4 R509	2002-001017	R-COMPOSITION;1Kohm,10%,1/2W,AA,TP,3.7x9	
....4 R510	2003-002007	R-METAL OXIDE(S);4.7Kohm,5%,2W,AF,TP,3.9	
....4 R511	2001-001062	R-CARBON(S);10MOHM,5%,1/2W,AA,TP,2.4X6.4	
....4 R512	2002-001012	R-COMPOSITION;8.2Mohm,5%,1/2W,AA,TP,3.7x	
....4 R513	2003-002288	R-METAL OXIDE(S);2.2KOHM,5%,2W,AF,TP,3.9	
....4 RF03	2001-000362	R-CARBON;150OHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RF04	2001-000313	R-CARBON;11KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RF07	2001-000904	R-CARBON;620OHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RF08	2001-000449	R-CARBON;2.2KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RF09	2001-000221	R-CARBON;1.2KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RF10	2001-000241	R-CARBON;1.5KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RF11	2001-000221	R-CARBON;1.2KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RF12	2001-000241	R-CARBON;1.5KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RF13	2001-001179	R-CARBON(S);68KOHM,5%,1/2W,AA,TP,2.4X6.4	
....4 RF14	2001-001071	R-CARBON(S);12KOHM,5%,1/2W,AA,TP,2.4X6.4	
....4 RF15	2001-001100	R-CARBON(S);2.7OHM,5%,1/2W,AA,TP,2.4X6.4	
....4 RF16	2001-001179	R-CARBON(S);68KOHM,5%,1/2W,AA,TP,2.4X6.4	
....4 RF17	2001-001100	R-CARBON(S);2.7OHM,5%,1/2W,AA,TP,2.4X6.4	
....4 RF18	2003-000458	R-METAL OXIDE(S);100ohm,5%,2W,AF,TP,4x12	
....4 RF19	2003-001023	R-METAL OXIDE(S);120ohm,5%,2W,AF,TP,3.9x	
....4 RF23	2003-000746	R-METAL OXIDE(S);56ohm,5%,2W,AF,TP,4x12m	
....4 RF24	2003-000746	R-METAL OXIDE(S);56ohm,5%,2W,AF,TP,4x12m	
....4 RF25	2003-002009	R-METAL OXIDE(S);390ohm,5%,2W,AF,TP,3.9x	
...3	AA63-10002A	BAND-TIE;NYLON66 V2,L100,NTR	
..2	AA96-00977A	ASSY MISC P-PCB,M/DVDP;DVD-PSA21/SAM,V18	
..2	AA96-00976A	ASSY MISC P-M/DVDP;DVD-DS002/SAM,V18A, ,	
..2	AA96-00959A	ASSY MISC P-M-DECK;, , ,6HD,19UM,NTSC,HQ	
..2	AA96-20129K	ASSY POWER CORD;,EP2/YES,H/S 450MM,KJ10W	
...3	3811-000401	WIRE-PVC CU;BCWA,300V,ROLL,17/0.16mm,#22	
...3	AA39-10007Y	CBF POWER CORD;-,EP2/YES,SPT-2 18AWGx2C,	
...3	AA61-20284A	HOLDER;P-CORD,PP,-,-,-,BLK,VO,KE-002	
..2	AA94-12364A	ASSY PCB MISC-INTERFACE;TORNADO-II,V18B,	
...3 CN11	3708-001364	CONNECTOR-FPC/FFC/PIC;35P,1.25MM,STRAIGH	
...3 CN12	AA39-00329A	LEAD CONNECTOR-ASSY;V18A,UL1007#26,UL/CS	
...3 CND001	AA39-00116C	LEAD CONNECTOR-ASSY;,12P,YBNH250-12,3515	
...3 CND002	AA39-00074A	LEAD CONNECTOR-ASSY;,8P,YBNH250-08,35155	
...3 CND003	AA39-20005G	LEAD CONNECTOR-ASSY;V18A,UL1007#26,UL/CS	
...3 DCN001	AA39-00229C	LEAD CONNECTOR-ASSY;V18A,UL1007#26,UL/CS	
...3 DCN002	3711-001018	CONNECTOR-HEADER;BOX,5P,1R,2mm,STRAIGHT,	

Loc. No.	Code No.	Description ; Specification	Remark
...3	DCN003	3708-001695	CONNECTOR-FPC/FFC/PIC;13P,1MM,STRAIGHT,S
...3	DCN005	3708-001696	CONNECTOR-FPC/FFC/PIC;24P,1MM,STRAIGHT,S
...3	DCN006	3708-001695	CONNECTOR-FPC/FFC/PIC;13P,1MM,STRAIGHT,S
...3	DCN007	3708-001696	CONNECTOR-FPC/FFC/PIC;24P,1MM,STRAIGHT,S
...3	RD106	2006-000162	R-CEMENT;2.7ohm,5%,5W,CB,BK,10x13x25.4m
...3		AA97-13493A	ASSY AUTO-INTERFACE;,V18B,DORNADO-II
....4	BD501	3301-000287	CORE-FERRITE BEAD;AA,3.5x1.0x6.0mm,1500,
....4	BD502	3301-000287	CORE-FERRITE BEAD;AA,3.5x1.0x6.0mm,1500,
....4	CD101	2202-000632	C-CERAMIC,MLC-AXIAL;100nF,20%,50V,Z5U,TP
....4	CD102	2401-002463	C-AL;470uF,20%,16V,GP,TP,8x11.5,5
....4	CD104	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5
....4	CD105	2401-002463	C-AL;470uF,20%,16V,GP,TP,8x11.5,5
....4	CD106	2401-002463	C-AL;470uF,20%,16V,GP,TP,8x11.5,5
....4	CD107	2401-002463	C-AL;470uF,20%,16V,GP,TP,8x11.5,5
....4	CD109	2202-000632	C-CERAMIC,MLC-AXIAL;100nF,20%,50V,Z5U,TP
....4	CD110	2401-002463	C-AL;470uF,20%,16V,GP,TP,8x11.5,5
....4	CD111	2401-002463	C-AL;470uF,20%,16V,GP,TP,8x11.5,5
....4	CD112	2401-002463	C-AL;470uF,20%,16V,GP,TP,8x11.5,5
....4	CD113	2401-002463	C-AL;470uF,20%,16V,GP,TP,8x11.5,5
....4	CD114	2401-002009	C-AL;100uF,20%,16V,GP,TP,6.3x7,5
....4	CD301	2401-002463	C-AL;470uF,20%,16V,GP,TP,8x11.5,5
....4	CD302	2401-002463	C-AL;470uF,20%,16V,GP,TP,8x11.5,5
....4	CD303	2401-002463	C-AL;470uF,20%,16V,GP,TP,8x11.5,5
....4	CD501	2202-000632	C-CERAMIC,MLC-AXIAL;100nF,20%,50V,Z5U,TP
....4	CD505	2401-000913	C-AL;22uF,20%,16V,GP,TP,5x11,5
....4	CD506	2202-000632	C-CERAMIC,MLC-AXIAL;100nF,20%,50V,Z5U,TP
....4	CD507	2301-000232	C-FILM,PEF;3.3nF,5%,50V,TP,8.1x4.5x13mm,
....4	CD508	2201-000558	C-CERAMIC,DISC;0.47nF,10%,50V,Y5P,TP,5x3
....4	CD509	2201-000558	C-CERAMIC,DISC;0.47nF,10%,50V,Y5P,TP,5x3
....4	CD510	2301-000232	C-FILM,PEF;3.3nF,5%,50V,TP,8.1x4.5x13mm,
....4	CD511	2201-000558	C-CERAMIC,DISC;0.47nF,10%,50V,Y5P,TP,5x3
....4	CD512	2201-000558	C-CERAMIC,DISC;0.47nF,10%,50V,Y5P,TP,5x3
....4	CD513	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5
....4	CD514	2202-000632	C-CERAMIC,MLC-AXIAL;100nF,20%,50V,Z5U,TP
....4	CD517	2401-000050	C-AL;10uF,20%,16V,GP,TP,5x11,2.5
....4	CD518	2401-000050	C-AL;10uF,20%,16V,GP,TP,5x11,2.5
....4	CD523	2202-000632	C-CERAMIC,MLC-AXIAL;100nF,20%,50V,Z5U,TP
....4	CD601	2401-002009	C-AL;100uF,20%,16V,GP,TP,6.3x7,5
....4	CD602	2202-000797	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5S,TP,
....4	CD603	2202-000632	C-CERAMIC,MLC-AXIAL;100nF,20%,50V,Z5U,TP
....4	DD101	0401-000005	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,
....4	DD102	0404-000156	DIODE-SCHOTTKY;RB441Q,10V,100mA,DO-34,TP
....4	DD103	0404-000156	DIODE-SCHOTTKY;RB441Q,10V,100mA,DO-34,TP
....4	DD104	0401-000005	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,
....4	DD505	0401-000005	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,
....4	DD506	0401-000005	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,
....4	DD507	0401-000005	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,
....4	DD508	0401-000005	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,
....4	DD602	0401-000005	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,
....4	DD603	0401-000005	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,
....4	DD604	0401-000005	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,
....4	FLD501	2901-001125	FILTER-EMI ON BOARD;50V,0.5A,-,220pF,7x2
....4	ICD602	1203-001274	IC-VOL. DETECTOR;7545,TO-92,3P,-,PLASTIC
....4	LD501	2701-000112	INDUCTOR-AXIAL;100uH,10%,3x7mm
....4	QD101	0501-000362	TR-SMALL SIGNAL;KSA2328A-Y,NPN,1W,TO-92L
....4	QD102	0501-000362	TR-SMALL SIGNAL;KSA2328A-Y,NPN,1W,TO-92L
....4	QD103	0501-000362	TR-SMALL SIGNAL;KSA2328A-Y,NPN,1W,TO-92L
....4	QD104	0504-000142	TR-DIGITAL;KSR2001,PNP,300MW,4.7K/4.7K,T
....4	QD105	0504-000119	TR-DIGITAL;KSR1004,NPN,300MW,47K/47K,TO-
....4	QD106	0504-000142	TR-DIGITAL;KSR2001,PNP,300MW,4.7K/4.7K,T
....4	QD107	0504-000119	TR-DIGITAL;KSR1004,NPN,300MW,47K/47K,TO-
....4	QD108	0501-000362	TR-SMALL SIGNAL;KSA2328A-Y,NPN,1W,TO-92L
....4	QD109	0501-000362	TR-SMALL SIGNAL;KSA2328A-Y,NPN,1W,TO-92L
....4	QD301	0501-000283	TR-SMALL SIGNAL;KSA539,PNP,400mW,TO-92,T
....4	QD302	0501-000283	TR-SMALL SIGNAL;KSA539,PNP,400mW,TO-92,T
....4	QD303	0501-000283	TR-SMALL SIGNAL;KSA539,PNP,400mW,TO-92,T
....4	QD501	0501-000398	TR-SMALL SIGNAL;KSC945,NPN,250mW,TO-92,T
....4	QD502	0501-000398	TR-SMALL SIGNAL;KSC945,NPN,250mW,TO-92,T
....4	QD603	0501-000283	TR-SMALL SIGNAL;KSA539,PNP,400mW,TO-92,T
....4	RD101	2001-001107	R-CARBON(S);220ohm,5%,1/2W,AA,TP,2.4x6.4
....4	RD102	2001-001088	R-CARBON(S);1KOHM,5%,1/2W,AA,TP,2.4X6.4M
....4	RD103	2001-001107	R-CARBON(S);220ohm,5%,1/2W,AA,TP,2.4x6.4
....4	RD104	2001-000449	R-CARBON;2.2KOHM,5%,1/8W,AA,TP,1.8X3.2MM
....4	RD105	2001-000449	R-CARBON;2.2KOHM,5%,1/8W,AA,TP,1.8X3.2MM
....4	RD107	2001-000449	R-CARBON;2.2KOHM,5%,1/8W,AA,TP,1.8X3.2MM
....4	RD108	2001-001088	R-CARBON(S);1KOHM,5%,1/2W,AA,TP,2.4X6.4M
....4	RD304	2001-000109	R-CARBON(S);470OHM,5%,1/2W,AA,TP,2.4X6.4
....4	RD305	2001-000109	R-CARBON(S);470OHM,5%,1/2W,AA,TP,2.4X6.4
....4	RD306	2001-000109	R-CARBON(S);470OHM,5%,1/2W,AA,TP,2.4X6.4
....4	RD501	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM
....4	RD502	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM
....4	RD504	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM
....4	RD505	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM
....4	RD506	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM
....4	RD507	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM
....4	RD508	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM
....4	RD509	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM
....4	RD510	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM
....4	RD511	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2MM
....4	RD512	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2MM
....4	RD513	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2MM
....4	RD514	2001-000490	R-CARBON;200OHM,5%,1/8W,AA,TP,1.8X3.2MM
....4	RD515	2001-000490	R-CARBON;200OHM,5%,1/8W,AA,TP,1.8X3.2MM
....4	RD516	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2MM
....4	RD517	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2MM
....4	RD518	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2MM
....4	RD519	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2MM
....4	RD520	2001-000490	R-CARBON;200OHM,5%,1/8W,AA,TP,1.8X3.2MM
....4	RD521	2001-000490	R-CARBON;200OHM,5%,1/8W,AA,TP,1.8X3.2MM
....4	RD522	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2MM
....4	RD523	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM
....4	RD524	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM
....4	RD525	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM
....4	RD526	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM
....4	RD527	2001-000515	R-CARBON;220OHM,5%,1/8W,AA,TP,1.8X3.2MM
....4	RD528	2001-000515	R-CARBON;220OHM,5%,1/8W,AA,TP,1.8X3.2MM
....4	RD534	2001-000515	R-CARBON;220OHM,5%,1/8W,AA,TP,1.8X3.2MM
....4	RD535	2001-000515	R-CARBON;220OHM,5%,1/8W,AA,TP,1.8X3.2MM
....4	RD602	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM
....4	RD603	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM
....4	RD604	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM
....4	RD605	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM
....4	RD606	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM
....4	RD607	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM
....4	RD608	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM
....4	RD610	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM
....4	RD611	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM
....4	RD612	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM
....4	RD613	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM
....4	RD615	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM
....4	RD616	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM
....4	RD617	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM
....4	RD618	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM
....4	RD619	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM
....4	RD620	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM
....4	RD621	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM
....4	RD622	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM
....4	RD623	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM
....4	RD624	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM
....4	RD625	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM
....4	RD626	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM
....4	RD627	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM
....4	RD628	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM
....4	RD629	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM
....4	RD630	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM
....4	RD631	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM
....4	RD632	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM
....4	RD633	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM
....4	RD634	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM
....4	RD635	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM
....4	RD636	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM
....4	RD637	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM
....4	RD638	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM
....4	RD639	2001-000010	R-CARBON;68KOHM,5%,1/8W,AA,TP,1.8X3.2MM
....4	RD640	2001-000832	R-CARBON;510OHM,5%,1/8W,AA,TP,1.8X3.2MM
....4	RD641	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM
....4	RD642	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM
....4	RD643	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM
....4	RD644	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM
....4	RD645	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM
....4	RD646	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM
....4	RD647	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM
....4	RD648	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM
....4	RD649	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM

Loc. No.		Code No.	Description ; Specification	Remark
....4	RD650	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4	RD651	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4	RD653	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4	RD654	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4	RD655	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4	RD657	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4	RD659	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4	RD660	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4	RD661	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4	RD662	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4	RD663	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4	RD664	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4	RD665	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4	RD666	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4	RD668	2001-000515	R-CARBON;220OHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4	RD685	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4	SWD701	3404-000244	SWITCH-TACT;15V,20mA,90-170gf,7.5x7mm,SP	
....4	SWD702	3404-000244	SWITCH-TACT;15V,20mA,90-170gf,7.5x7mm,SP	
....4	SWD703	3404-000244	SWITCH-TACT;15V,20mA,90-170gf,7.5x7mm,SP	
....4	SWD704	3404-000244	SWITCH-TACT;15V,20mA,90-170gf,7.5x7mm,SP	
....4	SWD705	3404-000244	SWITCH-TACT;15V,20mA,90-170gf,7.5x7mm,SP	
....4	XTD601	2802-000194	RESONATOR-CERAMIC;8MHz,1.0%,TP,8.5x4.5x5	
....4	ZDD101	0403-001211	DIODE-ZENER;MTZJ12B,11.44-12.03V,500MW,D	
....4	ZDD102	0403-000508	DIODE-ZENER;MTZJ5.6B,5.6V,5.45-5.73V,500	
....4	ZDD103	0403-000714	DIODE-ZENER;MTZJ3.3B,3.3V,3.32-3.53V,500	
....4	ZDD104	0403-000508	DIODE-ZENER;MTZJ5.6B,5.6V,5.45-5.73V,500	
....4		AA41-00665A	PCB-INTERFACE;SMD-29J5,FR-1,1L,A,1.6T,33	
....4		AA97-07657A	ASSY SMD;V18A, , , ,	
.....5	ICD501	1002-001241	IC-D/A CONVERTER;AK4382VT,24BIT,TSSOP,16	
.....5	ICD502	1201-000163	IC-OP AMP;4560,SOP,8P,173MIL,DUAL,100V/m	
.....5	ICD503	0801-000442	IC-CMOS LOGIC;74HCU04,INVERTER,SOP,14P,1	
.....5	ICD601	AA09-00305A	IC MICOM;UPD78F0034AGC-580-8B,SNM-746,64	
...3		3809-001360	CABLE-FLAT;30V,80C,150MM,35P,1.25MM,UL28	
...3		3809-001359	CABLE-FLAT;60V,80C,130MM,24P,1MM,UL20624	
...3		3809-001358	CABLE-FLAT;60V,80C,130MM,13P,1MM,UL20624	
..2		AA94-12176A	ASSY PCB POWER;,V18B	
...3	C806	2401-002251	C-AL;470uF,20%,200V,GP,BK,25x40mm,1	
...3	C815	2401-000787	C-AL;220uF,20%,160V,GP,TP,16x31.5mm	
...3	CN301	AA60-40012D	PIN-GT,ASSY;T1.6,6-12.5-,NYLON66	
...3	CN401	3711-003975	CONNECTOR-HEADER;BOX,14P,1R,2.5mm,STRAIG	
...3	CN802	3711-003975	CONNECTOR-HEADER;BOX,14P,1R,2.5mm,STRAIG	
⚠ ...3	CR401S	2306-000330	C-FILM,MPPF;7.7nF,3%,1.6KV,TP,28.5x18.5x	
⚠ ...3	CR402S	2306-000328	C-FILM,MPPF;6.8nF,5%,1.6KV,TP,28.5x18x10	
⚠ ...3	CR404S	2301-001271	C-FILM,MPPF;510NF,5%,400V,TP,26X13.5X22M	
⚠ ...3	CR405S	2301-001192	C-FILM,MPPF;820nF,5%,400V,TP,29x18.5x25.	
⚠ ...3	CX801S	2306-000321	C-FILM,MPPF;470NF,5%,275V,TP,-,22.5	
⚠ ...3	CY801S	2201-000446	C-CERAMIC,DISC;3.3nF,20%,400V,Y5U,TP,15x	
⚠ ...3	CY802S	2201-002002	C-CERAMIC,DISC;4.7nF,20%,400V,Y5U,TP,16x	
...3	D414	AA96-00275P	ASSY H/S;,POWER,AA62-00051A,2SC5520,FMP-	
....4	CIS	AA62-00051A	HEAT SINK-PS;-,-,-,SILVER,HOLE 31mm,ALL,	
....4	CIS	AA60-30001A	WASHER-PLATE;M3,ID3.5,15X8.5,T1.0,SBHG	
....4	CIS	6003-000333	SCREW-TAPTITE;RH,+,2S,M3,L10,ZPC(YEL),SW	
....4	CIS	0502-001222	TR-POWER;2SC5520,NPN,50000MW,TOP-3D,ST,5	
....4	CIS	0402-001296	DIODE-RECTIFIER;FMP-3FU,1.5KV,5A,TO-3PF,	
....4	CIS	0205-001027	OIL-SILICON;G746,-,-	
⚠ ...3	D801S	0402-000116	DIODE-BRIDGE;RBV606,600V,6A,-,ST	
⚠ ...3	D805	0402-000586	DIODE-RECTIFIER;RK49,90V,3.5A,DO-201AD	
⚠ ...3	D808	0402-000005	DIODE-RECTIFIER;31DF4,400V,3A,DO-201AD,B	
⚠ ...3	D811	0402-000586	DIODE-RECTIFIER;RK49,90V,3.5A,DO-201AD	
⚠ ...3	FP801S	3601-001012	FUSE;250V,4A,SLOW-BLOW,GLASS,5.2x20mm	
...3	IC301	AA96-00623A	ASSY H/S;-,POWER,AA62-00056A,LA7845	
....4		0205-000129	GREASE-SILICON;SC102,JAPAN	
....4		1204-000517	IC-VERTICAL DEF.;LA7845,SIP,7P,-,PLASTIC	
....4		6003-000334	SCREW-TAPTITE;RH,+,2S,M3,L6,ZPC(YEL),SWR	
....4		AA62-00056A	HEAT SINK-PS;-,-,T1.0,-,41*35*70,D2,-,-,	
...3	IC601	AA96-00623B	ASSY H/S;-,SOUND,AA62-00056A,TDA7266S,VC	
....4		0205-000129	GREASE-SILICON;SC102,JAPAN	
....4		1201-001308	IC-POWER AMP;7266,ZIP,15P,-,DUAL,26dB,PL	
....4		6003-000334	SCREW-TAPTITE;RH,+,2S,M3,L6,ZPC(YEL),SWR	
....4		AA62-00056A	HEAT SINK-PS;-,-,T1.0,-,41*35*70,D2,-,-,	
⚠ ...3	IC801S	AA96-50371H	ASSY H/S;-,SMPS,AA62-30181H,5Q1565RF,HER	
....4		AA61-11028A	BRACKET;-,SECC,T1.0,-,-,-,-	
....4		AA62-30181H	HEAT SINK-ES;-,AL6063 EXTR.,2,WHT,50MM,-	
....4		6003-000333	SCREW-TAPTITE;RH,+,2S,M3,L10,ZPC(YEL),SW	
....4		1203-002512	IC-PWM CONTROLLER;KA5Q1565RF-YDTU,TO-3PF	
....4		0205-000129	GREASE-SILICON;SC102,JAPAN	
...3	ICG01	AA96-00110D	ASSY H/S;-,-,AA62-30013K,TDA2030,-	

Loc. No.		Code No.	Description ; Specification	Remark
....4		1201-000010	IC-OP AMP;2030,PENTAWATT,5P,-,SINGLE,-,C	
....4		6003-000333	SCREW-TAPTITE;RH,+,2S,M3,L10,ZPC(YEL),SW	
....4		AA62-30013K	HEAT SINK-ES;-,-,-,-,44/18,-,WHT,A6063 E	
...3	L402	AA27-00067A	COIL HORIZ. WIDTH;-,240uH,YL9N 12x20 C:6	
...3	L405	AA27-00057A	COIL HORIZ. WIDTH;-,10mH,YL-9N 15x27.5 C	
...3	L408	AA27-00056A	COIL HORIZ. WIDTH;-,600uH,YL9N 15x27.5 C	
...3	L808	AA27-00098A	COIL CHOKE;-,-,24uH,10%,-,0.1,3.0A,DR10X	
⚠ ...3	LR401S	AA27-30003S	COIL LINEARITY;-,54uH,YL81DR14x15,0.12mm	
⚠ ...3	LX801S	AA29-30002N	FILTER LINE NOISE;-,16MH,1.5A,AC100~260V	
⚠ ...3	PC801S	0604-001038	PHOTO-COUPLER;TR,130-260%,200mW,DIP-4,ST	
⚠ ...3	PT801S	1404-001264	THERMISTOR-PTC;4.5OHM,+30/-20%,220V,290V	
...3	Q403	AA96-50379B	ASSY H/S;SCREW,-,AA62-30183B,IRF620,V18B	
....4	CIS	0205-001027	OIL-SILICON;G746,-,-	
....4	CIS	0505-000156	FET-SILICON;IRF620,N,200V,5A,0.8ohm,50W,	
....4	CIS	6003-000333	SCREW-TAPTITE;RH,+,2S,M3,L10,ZPC(YEL),SW	
....4	CIS	AA62-30183B	HEAT SINK-ES;-,A6063 EXTR.,2,WHT,30MM,-,	
...3	Q804	AA96-00243H	ASSY H/S;-,POWER,AA62-00045A,KSD73Y,C17A	
....4		0205-000129	GREASE-SILICON;SC102,JAPAN	
....4		0502-000298	TR-POWER;KSD73,NPN,30000mW,TO-220,TP,120	
....4		6003-000335	SCREW-TAPTITE;RH,+,2S,M3,L8,ZPC(YEL),SWR	
....4		AA62-00045A	HEAT SINK-PS;-,-,T1.0,-,-,DREAM,-,-,-,-,	
...3	Q805	AA96-00243G	ASSY H/S;-,POWER,AA62-00045A,C2073-H2,V1	
...3	Q810	AA96-00243G	ASSY H/S;-,POWER,AA62-00045A,C2073-H2,V1	
....4		0205-000129	GREASE-SILICON;SC102,JAPAN	
....4		0502-001007	TR-POWER;KSC2073-H2,NPN,25W,TO-220,ST,6	
....4		6003-000335	SCREW-TAPTITE;RH,+,2S,M3,L8,ZPC(YEL),SWR	
....4		AA62-00045A	HEAT SINK-PS;-,-,T1.0,-,-,DREAM,-,-,-,-,	
⚠ ...3	RL801S	3501-001040	RELAY-POWER;12VDC,500mW,10A,1FormA,15mS,	
⚠ ...3	T401	AA26-50001M	TRANS-HORIZ.DRIVE;-,-,-,80mH,-,-,520uH,-	
⚠ ...3	T444S	AA26-00057A	TRANS FBT;-,FUH-29A001B(S),25/29,130	
⚠ ...3	T801S	AA26-00195A	TRANS SWITCHING;EER4950,V18B,90~264V,PL5	
...3		AA65-30104C	CLAMPER CORE-WIRE;ALL MODEL,NYLON 66,V2,	
...3		AA97-13521A	ASSY AUTO-POWER;,TORNADO-2(V18B)	
....4	C301	2301-000192	C-FILM,PEF;1nF,5%,50V,TP,5.3x10mm,5mm	
....4	C302	2401-000360	C-AL;100uF,20%,50V,GP,TP,8x11.5,5	
....4	C303	2201-002022	C-CERAMIC,DISC;0.005nF,0.25pF,500V,NP0,T	
....4	C304	2305-000285	C-FILM,MPEF;220NF,5%,100V,TP,10.5X5.5X15	
....4	C305	2305-000149	C-FILM,MPEF;100nF,5%,100V,TP,12x12.5x6.5	
....4	C306	2301-000342	C-FILM,PEF;2.2nF,5%,50V,TP,7.4x3.9x13mm,	
....4	C307	2401-000360	C-AL;100uF,20%,50V,GP,TP,8x11.5,5	
....4	C309	2301-000192	C-FILM,PEF;1nF,5%,50V,TP,5.3x10mm,5mm	
....4	C401	2201-000556	C-CERAMIC,DISC;0.47nF,10%,500V,Y5P,TP,5.	
....4	C402	2401-001397	C-AL;470uF,20%,25V,GP,TP,10x16,5	
....4	C403	2201-000556	C-CERAMIC,DISC;0.47nF,10%,500V,Y5P,TP,5.	
....4	C404	2401-001397	C-AL;470uF,20%,25V,GP,TP,10x16,5	
....4	C405	2202-000183	C-CERAMIC,MLC-AXIAL;2.2NF,20%,16V,Y5R,TP	
....4	C406	2401-000569	C-AL;1uF,20%,250V,GP,TP,6.3x11,5	
....4	C407	2201-000639	C-CERAMIC,DISC;0.68nF,10%,2kV,Y5P,TP,9x5	
....4	C408	2305-000382	C-FILM,MPEF;4.7nF,5%,400V,TP,-,5mm	
....4	C409	2202-000173	C-CERAMIC,MLC-AXIAL;1nF,10%,50V,Y5P,TP,1	
....4	C410	2301-001259	C-FILM,MPPF;100nF,5%,400V,TP,19x8x16,7.5	
....4	C411	2301-000192	C-FILM,PEF;1nF,5%,50V,TP,5.3x10mm,5mm	
....4	C412	2305-000178	C-FILM,MPEF;10nF,5%,100V,TP,-,5mm	
....4	C414	2401-002619	C-AL;47uF,20%,25V,GP,TP,5x11,5	
....4	C420	2306-000224	C-FILM,MPPF;47nF,5%,400V,TP,19x15.5x7,7.	
....4	C421	2201-000556	C-CERAMIC,DISC;0.47nF,10%,500V,Y5P,TP,5.	
....4	C422	2401-000927	C-AL;22uF,20%,250V,GP,TP,13x20,5	
....4	C424	2201-000132	C-CERAMIC,DISC;0.1nF,10%,500V,Y5P,TP,6.5	
....4	C427	2401-002267	C-AL;2.2uF,20%,250V,GP,TP,8x11.5,5	
....4	C604	2401-001998	C-AL;1000uF,20%,25V,GP,TP,10x20,5mm	
....4	C605	2401-000050	C-AL;10uF,20%,16V,GP,TP,5x11,2.5	
....4	C607	2401-000025	C-AL;100uF,20%,16V,GP,TP,6.3x11,5	
....4	C608	2301-000356	C-FILM,PEF;47nF,5%,50V,TP,7.5x4.0x6.5,5m	
....4	C609	2401-001914	C-AL;1uF,20%,50V,BP,TP,5x11,5	
....4	C610	2301-000356	C-FILM,PEF;47nF,5%,50V,TP,7.5x4.0x6.5,5m	
....4	C611	2401-001914	C-AL;1uF,20%,50V,BP,TP,5x11,5	
....4	C620	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5	
....4	C621	2401-003034	C-AL;220uF,20%,16V,WT,TP,8x11.5,5	
....4	C622	2401-002144	C-AL;47uF,20%,16V,GP,TP,5x11,5	
....4	C801	2305-000665	C-FILM,MPEF;100nF,5%,63V,TP,7.5x4.0x5.0m	
....4	C802	2401-000832	C-AL;220uF,20%,25V,GP,TP,8x11.5,5	
....4	C803	2401-002300	C-AL;47uF,20%,50V,GP,TP,6.3x11,5	
....4	C804	2201-000332	C-CERAMIC,DISC;2.2nF,20%,250V,Y5U,TP,9x4	
....4	C805	2401-000025	C-AL;100uF,20%,16V,GP,TP,6.3x11,5	
....4	C807	2301-001397	C-FILM,PPF;2.2nF,5%,1.2kV,TP,15x8.5x13.5	
....4	C808	2401-001192	C-AL;33uF,20%,50V,GP,TP,6.3x11,5	
....4	C809	2401-000287	C-AL;100uF,20%,16V,WT,TP,6.3x11,5	

Loc. No.	Code No.	Description ; Specification	Remark
....4 C810	2201-000332	C-CERAMIC,DISC;2.2nF,20%,250V,Y5U,TP,9x4	
....4 C811	2301-000235	C-FILM,PEF;3.9nF,5%,50V,TP,6.5x3.0x5.5mm	
....4 C812	2401-000025	C-AL;100uF,20%,16V,GP,TP,6.3x11,5	
....4 C813	2401-000287	C-AL;100uF,20%,16V,WT,TP,6.3x11,5	
....4 C814	2201-000639	C-CERAMIC,DISC;0.68nF,10%,2kV,Y5P,TP,9x5	
....4 C816	2401-000293	C-AL;100uF,+30-10%,200V,GP,TP,16x25	
....4 C817	2201-000599	C-CERAMIC,DISC;0.56nF,10%,500V,Y5P,TP,5.	
....4 C818	2401-000689	C-AL;2200uF,20%,16V,GP,TP,13x25,5	
....4 C819	2401-002594	C-AL;220uF,20%,16V,GP,TP,8x11.5,5	
....4 C820	2201-000599	C-CERAMIC,DISC;0.56nF,10%,500V,Y5P,TP,5.	
....4 C821	2301-000224	C-FILM,PEF;22nF,5%,50V,TP,7.4x3.9x13mm,5	
....4 C822	2401-003139	C-AL;1000uF,20%,25V,WT,TP,10*20,5mm	
....4 C824	2201-000599	C-CERAMIC,DISC;0.56nF,10%,500V,Y5P,TP,5.	
....4 C828	2201-000599	C-CERAMIC,DISC;0.56nF,10%,500V,Y5P,TP,5.	
....4 C829	2401-001998	C-AL;1000uF,20%,25V,GP,TP,10x20,5mm	
....4 C830	2401-000302	C-AL;100uF,20%,25V,GP,TP,6.3x11,5	
....4 C839	2401-002463	C-AL;470uF,20%,16V,GP,TP,8x11.5,5	
....4 C840	2301-000224	C-FILM,PEF;22nF,5%,50V,TP,7.4x3.9x13mm,5	
....4 C841	2305-000665	C-FILM,MPEF;100nF,5%,63V,TP,7.5x4.0x5.0m	
....4 C843	2201-000374	C-CERAMIC,DISC;0.22nF,5%,50V,NP0,TP,10.5	
....4 C847	2401-001363	C-AL;470uF,20%,16V,GP,TP,10x12.5,5	
....4 C848	2401-000689	C-AL;2200uF,20%,16V,GP,TP,13x25,5	
....4 CG01	2401-002459	C-AL;220uF,20%,25V,LZ,TP,10x16,5	
....4 CG02	2401-002459	C-AL;220uF,20%,25V,LZ,TP,10x16,5	
....4 CG03	2401-002075	C-AL;4.7uF,20%,50V,GP,TP,5x11,5	
....4 CN402	3711-002642	CONNECTOR-HEADER;BOX,3P,1R,2.5mm,STRAIGH	
....4 CN501	3711-002646	CONNECTOR-HEADER;BOX,7P,1R,2.5mm,STRAIGH	
....4 CN502	3711-002646	CONNECTOR-HEADER;BOX,7P,1R,2.5mm,STRAIGH	
....4 CN601	3711-002644	CONNECTOR-HEADER;BOX,5P,1R,2.5mm,STRAIGH	
....4 CR02S	2401-000480	C-AL;10uF,20%,50V,GP,TP,5x11,5	
....4 CR03S	2401-000050	C-AL;10uF,20%,16V,GP,TP,5x11,2.5	
⚠ 4 CR403S	2301-001216	C-FILM,PPF;47nF,5%,630V,TP,20x14.5x22,7.	
....4 D301	0402-000546	DIODE-RECTIFIER;TVR10G,400V,1.0A,DO-41,T	
....4 D302	0401-000005	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
....4 D401	0402-000540	DIODE-RECTIFIER;RU20A,600V,1.5A,-,TP	
....4 D402	0402-000540	DIODE-RECTIFIER;RU20A,600V,1.5A,-,TP	
....4 D403	0402-000132	DIODE-RECTIFIER;1N4004,400V,1A,DO-41,TP	
....4 D404	0402-000537	DIODE-RECTIFIER;RH1A,600V,0.6A,DO-204AC	
....4 D405	0401-000005	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
....4 D406	0401-000005	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
....4 D411	0402-000540	DIODE-RECTIFIER;RU20A,600V,1.5A,-,TP	
....4 D412	0401-000005	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
....4 D413	0402-000537	DIODE-RECTIFIER;RH1A,600V,0.6A,DO-204AC	
....4 D415	0401-000005	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
....4 D601	0401-000005	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
....4 D602	0401-000005	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
....4 D603	0401-000005	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
⚠ 4 D802	0402-000132	DIODE-RECTIFIER;1N4004,400V,1A,DO-41,TP	
⚠ 4 D803	0402-000546	DIODE-RECTIFIER;TVR10G,400V,1.0A,DO-41,T	
⚠ 4 D804	0402-000546	DIODE-RECTIFIER;TVR10G,400V,1.0A,DO-41,T	
⚠ 4 D806	0401-000005	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
⚠ 4 D807	0402-000132	DIODE-RECTIFIER;1N4004,400V,1A,DO-41,TP	
⚠ 4 D809	0401-000005	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
⚠ 4 D810	0404-001056	DIODE-SCHOTTKY;RK16,60V,1.5A,DO-204AC,TP	
⚠ 4 D812	0402-000542	DIODE-RECTIFIER;RU4AM,600V,2A,-	
⚠ 4 D833	0401-000005	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
⚠ 4 D834	0401-000005	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
⚠ 4 D835	0401-000005	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
⚠ 4 D836	0404-000156	DIODE-SCHOTTKY;RB441Q,10V,100mA,DO-34,TP	
⚠ 4 D848	0401-000005	DIODE-SWITCHING;1N4148,100V,200mA,DO-35,	
⚠ 4 DR01S	0402-000546	DIODE-RECTIFIER;TVR10G,400V,1.0A,DO-41,T	
....4 DZ302	0403-001329	DIODE-ZENER;MTZJ24B,22.61-23.77V,500mW,D	
....4 DZ303	0403-001329	DIODE-ZENER;MTZJ24B,22.61-23.77V,500mW,D	
....4 DZ304	0403-001329	DIODE-ZENER;MTZJ24B,22.61-23.77V,500mW,D	
....4 DZ305	0403-001221	DIODE-ZENER;UZ39BSB,35.36-37.19V,500MW,D	
....4 DZ306	0403-001167	DIODE-ZENER;MTZJ30D,30V,29.02-30.51V,500	
....4 DZ401	0403-000642	DIODE-ZENER;UZP7.5B,7.0-7.9V,1W,DO-41,TP	
....4 DZ801	0403-001211	DIODE-ZENER;MTZJ12B,11.44-12.03V,500MW,D	
....4 DZ802	0403-000716	DIODE-ZENER;MTZJ4.7B,4.7V,4.55-4.8V,500m	
....4 DZ803	0403-001330	DIODE-ZENER;MTZJ30A,26.99-28.39V,500mW,D	
....4 DZ804	0403-001327	DIODE-ZENER;MTZJ18A,16.22-17.06V,500mW,D	
....4 DZ807	0403-000700	DIODE-ZENER;TZP33A,33V,31-35V,1W,DO-41,T	
....4 DZ808	0403-000510	DIODE-ZENER;MTZJ6.2B,6.2V,5.96-6.27V,500	
....4 DZ809	0403-001322	DIODE-ZENER;MTZJ8.2B,7.78-8.19V,500mW,DO	
....4 DZ814	0403-000510	DIODE-ZENER;MTZJ6.2B,6.2V,5.96-6.27V,500	
⚠ 4 DZR01S	0403-001321	DIODE-ZENER;MTZJ6.8C,6.66-7.01V,500mW,DO	
....4 EL01	6042-000001	EYELET;ID2.2,OD2.7,L3.1,SN,BSS3-E/EH	

Loc. No.	Code No.	Description ; Specification	Remark
....4 EL02	6042-000001	EYELET;ID2.2,OD2.7,L3.1,SN,BSS3-E/EH	
....4 EL06	6042-000001	EYELET;ID2.2,OD2.7,L3.1,SN,BSS3-E/EH	
....4 EL07	6042-000001	EYELET;ID2.2,OD2.7,L3.1,SN,BSS3-E/EH	
....4 EL08	6042-000001	EYELET;ID2.2,OD2.7,L3.1,SN,BSS3-E/EH	
....4 EL09	6042-000001	EYELET;ID2.2,OD2.7,L3.1,SN,BSS3-E/EH	
....4 EL10	6042-000001	EYELET;ID2.2,OD2.7,L3.1,SN,BSS3-E/EH	
....4 EL11	6042-000001	EYELET;ID2.2,OD2.7,L3.1,SN,BSS3-E/EH	
....4 EL12	6042-000001	EYELET;ID2.2,OD2.7,L3.1,SN,BSS3-E/EH	
....4 EL13	6042-000001	EYELET;ID2.2,OD2.7,L3.1,SN,BSS3-E/EH	
....4 EL14	6042-000001	EYELET;ID2.2,OD2.7,L3.1,SN,BSS3-E/EH	
....4 EY01	AA60-40011A	K EYELET;ID2.0,OD2.8,BST	
....4 EY02	AA60-40011A	K EYELET;ID2.0,OD2.8,BST	
....4 EY03	AA60-40011A	K EYELET;ID2.0,OD2.8,BST	
....4 EY04	AA60-40011A	K EYELET;ID2.0,OD2.8,BST	
....4 EY05	AA60-40011A	K EYELET;ID2.0,OD2.8,BST	
....4 EY06	AA60-40011A	K EYELET;ID2.0,OD2.8,BST	
....4 EY07	AA60-40011A	K EYELET;ID2.0,OD2.8,BST	
....4 EY08	AA60-40011A	K EYELET;ID2.0,OD2.8,BST	
....4 EY09	AA60-40011A	K EYELET;ID2.0,OD2.8,BST	
....4 EY10	AA60-40011A	K EYELET;ID2.0,OD2.8,BST	
....4 EY11	AA60-40011A	K EYELET;ID2.0,OD2.8,BST	
....4 EY12	AA60-40011A	K EYELET;ID2.0,OD2.8,BST	
....4 EY13	AA60-40011A	K EYELET;ID2.0,OD2.8,BST	
....4 EY14	AA60-40011A	K EYELET;ID2.0,OD2.8,BST	
....4 EY15	AA60-40011A	K EYELET;ID2.0,OD2.8,BST	
....4 EY16	AA60-40011A	K EYELET;ID2.0,OD2.8,BST	
....4 EY17	AA60-40011A	K EYELET;ID2.0,OD2.8,BST	
....4 EY18	AA60-40011A	K EYELET;ID2.0,OD2.8,BST	
....4 EY19	AA60-40011A	K EYELET;ID2.0,OD2.8,BST	
....4 EY20	AA60-40011A	K EYELET;ID2.0,OD2.8,BST	
....4 EY21	AA60-40011A	K EYELET;ID2.0,OD2.8,BST	
....4 EY22	AA60-40011A	K EYELET;ID2.0,OD2.8,BST	
....4 EY23	AA60-40011A	K EYELET;ID2.0,OD2.8,BST	
....4 EY24	AA60-40011A	K EYELET;ID2.0,OD2.8,BST	
....4 EY25	AA60-40011A	K EYELET;ID2.0,OD2.8,BST	
....4 EY26	AA60-40011A	K EYELET;ID2.0,OD2.8,BST	
....4 EY27	AA60-40011A	K EYELET;ID2.0,OD2.8,BST	
....4 EY28	AA60-40011A	K EYELET;ID2.0,OD2.8,BST	
....4 EY29	AA60-40011A	K EYELET;ID2.0,OD2.8,BST	
....4 EY30	AA60-40011A	K EYELET;ID2.0,OD2.8,BST	
....4 EY31	AA60-40011A	K EYELET;ID2.0,OD2.8,BST	
....4 EY32	AA60-40011A	K EYELET;ID2.0,OD2.8,BST	
....4 EY33	AA60-40011A	K EYELET;ID2.0,OD2.8,BST	
....4 EY34	AA60-40011A	K EYELET;ID2.0,OD2.8,BST	
....4 EY35	AA60-40011A	K EYELET;ID2.0,OD2.8,BST	
....4 EY36	AA60-40011A	K EYELET;ID2.0,OD2.8,BST	
....4 EY37	AA60-40011A	K EYELET;ID2.0,OD2.8,BST	
....4 EY38	AA60-40011A	K EYELET;ID2.0,OD2.8,BST	
....4 EY39	AA60-40011A	K EYELET;ID2.0,OD2.8,BST	
....4 EY40	AA60-40011A	K EYELET;ID2.0,OD2.8,BST	
....4 EY41	AA60-40011A	K EYELET;ID2.0,OD2.8,BST	
....4 EY42	AA60-40011A	K EYELET;ID2.0,OD2.8,BST	
....4 EY43	AA60-40011A	K EYELET;ID2.0,OD2.8,BST	
....4 EY44	AA60-40011A	K EYELET;ID2.0,OD2.8,BST	
....4 EY45	AA60-40011A	K EYELET;ID2.0,OD2.8,BST	
....4 EY46	AA60-40011A	K EYELET;ID2.0,OD2.8,BST	
....4 EY47	AA60-40011A	K EYELET;ID2.0,OD2.8,BST	
....4 EY48	AA60-40011A	K EYELET;ID2.0,OD2.8,BST	
....4 EY49	AA60-40011A	K EYELET;ID2.0,OD2.8,BST	
....4 EY50	AA60-40011A	K EYELET;ID2.0,OD2.8,BST	
....4 EY51	AA60-40011A	K EYELET;ID2.0,OD2.8,BST	
....4 EY52	AA60-40011A	K EYELET;ID2.0,OD2.8,BST	
....4 EY53	AA60-40011A	K EYELET;ID2.0,OD2.8,BST	
....4 EY54	AA60-40011A	K EYELET;ID2.0,OD2.8,BST	
....4 EY55	AA60-40011A	K EYELET;ID2.0,OD2.8,BST	
....4 EY56	AA60-40011A	K EYELET;ID2.0,OD2.8,BST	
....4 EY57	AA60-40011A	K EYELET;ID2.0,OD2.8,BST	
....4 EY58	AA60-40011A	K EYELET;ID2.0,OD2.8,BST	
....4 EY59	AA60-40011A	K EYELET;ID2.0,OD2.8,BST	
....4 EY60	AA60-40011A	K EYELET;ID2.0,OD2.8,BST	
....4 EY61	AA60-40011A	K EYELET;ID2.0,OD2.8,BST	
....4 EY62	AA60-40011A	K EYELET;ID2.0,OD2.8,BST	
....4 EY63	AA60-40011A	K EYELET;ID2.0,OD2.8,BST	
....4 EY64	AA60-40011A	K EYELET;ID2.0,OD2.8,BST	
....4 EY65	AA60-40011A	K EYELET;ID2.0,OD2.8,BST	
....4 EY66	AA60-40011A	K EYELET;ID2.0,OD2.8,BST	
....4 EY67	AA60-40011A	K EYELET;ID2.0,OD2.8,BST	

Loc. No.	Code No.	Description ; Specification	Remark
....4 EY68	AA60-40011A	K EYELET;ID2.0,OD2.8,BST	
....4 EY69	AA60-40011A	K EYELET;ID2.0,OD2.8,BST	
....4 F801A	3602-000114	FUSE-HOLDER;-,-,30mohm	
....4 F801B	3602-000114	FUSE-HOLDER;-,-,30mohm	
⚠ 4 FA801S	3601-001086	FUSE-AXIAL LEAD;125V,5A,FAST-ACTING,GLAS	
⚠ 4 FA802S	3601-001086	FUSE-AXIAL LEAD;125V,5A,FAST-ACTING,GLAS	
⚠ 4 FA803S	3601-001199	FUSE-AXIAL LEAD;125V,3A,SLOW-BLOW,EPOXY,	
....4 GT05	AA60-40014A	PIN-GT,ASSY;AUTO	
....4 GT06	AA60-40014A	PIN-GT,ASSY;AUTO	
....4 GT07	AA60-40014A	PIN-GT,ASSY;AUTO	
....4 GT08	AA60-40014A	PIN-GT,ASSY;AUTO	
....4 GT11	AA60-40014A	PIN-GT,ASSY;AUTO	
....4 GT12	AA60-40014A	PIN-GT,ASSY;AUTO	
....4 L205	2701-000114	INDUCTOR-AXIAL;10uH,10%,2.5x3.4mm	
....4 L208	2701-000114	INDUCTOR-AXIAL;10uH,10%,2.5x3.4mm	
....4 L302	3301-000287	CORE-FERRITE BEAD;AA,3.5x1.0x6.0mm,1500,	
....4 L303	3301-000287	CORE-FERRITE BEAD;AA,3.5x1.0x6.0mm,1500,	
....4 L304	3301-000287	CORE-FERRITE BEAD;AA,3.5x1.0x6.0mm,1500,	
....4 L305	3301-000287	CORE-FERRITE BEAD;AA,3.5x1.0x6.0mm,1500,	
⚠ 4 L401	3301-000287	CORE-FERRITE BEAD;AA,3.5x1.0x6.0mm,1500,	
....4 L801	3301-000287	CORE-FERRITE BEAD;AA,3.5x1.0x6.0mm,1500,	
....4 L803	3301-000287	CORE-FERRITE BEAD;AA,3.5x1.0x6.0mm,1500,	
....4 L804	3301-000287	CORE-FERRITE BEAD;AA,3.5x1.0x6.0mm,1500,	
....4 L809	3301-000287	CORE-FERRITE BEAD;AA,3.5x1.0x6.0mm,1500,	
....4 LG01	2701-000184	INDUCTOR-AXIAL;4.7uH,10%,2.5x3.4mm	
⚠ 4 NT801S	1404-001045	THERMISTOR-NTC;4.7ohm,15%,2900K,35.0mW,T	
....4 PCB	AA41-00795A	PCB-POWER;TORNADOII,CEM-1,1L,A,1.6T,245X	
....4 Q402	0501-000369	TR-SMALL SIGNAL;KSC2331-Y,NPN,1000mW,TO-	
....4 Q601	0501-000398	TR-SMALL SIGNAL;KSC945,NPN,250mW,TO-92,T	
....4 Q602	0504-000142	TR-DIGITAL;KSR2001,PNP,300MW,4.7K/4.7K,T	
....4 Q802	0501-000369	TR-SMALL SIGNAL;KSC2331-Y,NPN,1000mW,TO-	
....4 Q803	1203-001217	IC-POSI.ADJUST REG.;431,TO-92,3P,4.58MIL	
....4 Q806	0501-000389	TR-SMALL SIGNAL;KSC815,NPN,400mW,TO-92,T	
....4 Q807	0501-000362	TR-SMALL SIGNAL;KSA2328A-Y,NPN,1W,TO-92L	
....4 Q811	0501-000398	TR-SMALL SIGNAL;KSC945,NPN,250mW,TO-92,T	
....4 Q812	0504-000142	TR-DIGITAL;KSR2001,PNP,300MW,4.7K/4.7K,T	
⚠ 4 QR01S	0501-000283	TR-SMALL SIGNAL;KSA539,PNP,400mW,TO-92,T	
....4 R301	2004-001983	R-METAL(S);2.49Kohm,1%,1/2W,AA,TP,2.4x6.	
....4 R302	2004-001984	R-METAL(S);26.7Kohm,1%,1/2W,AA,TP,2.4x6.	
....4 R303	2001-000016	R-CARBON(S);10HM,5%,1/2W,AA,TP,2.4X6.4MM	
....4 R304	2008-001079	R-FUSIBLE;4.70HM,5%,2W,AF,TP,3.9X10MM	
....4 R305	2008-000292	R-FUSIBLE(S);3.3ohm,5%,2W,AF,TP,3.9x10mm	
....4 R306	2003-002157	R-METAL OXIDE;220OHM,5%,2W,AG,TP,6X16MM	
....4 R307	2001-000096	R-CARBON(S);1M0HM,5%,1/2W,AA,TP,2.4X6.4M	
....4 R314	2004-001986	R-METAL(S);35.7Kohm,1%,1/2W,AA,TP,2.4x6.	
....4 R315	2004-001126	R-METAL;6.2Kohm,1%,1/8W,AA,TP,1.8x3.2m	
....4 R402	2001-001078	R-CARBON(S);15KOHM,5%,1/2W,AA,TP,2.4X6.4	
....4 R403	2001-001155	R-CARBON(S);5.6KOHM,5%,1/2W,AA,TP,2.4X6.	
....4 R404	2001-000028	R-CARBON(S);100OHM,5%,1/2W,AA,TP,2.4X6.4	
....4 R405	2008-001049	R-FUSIBLE(S);3.9ohm,5%,2W,AF,TP,3.9x10mm	
....4 R406	2001-001078	R-CARBON(S);15KOHM,5%,1/2W,AA,TP,2.4X6.4	
....4 R408	2001-001155	R-CARBON(S);5.6KOHM,5%,1/2W,AA,TP,2.4X6.	
....4 R409	2001-000020	R-CARBON(S);22OHM,5%,1/2W,AA,TP,2.4X6.4M	
....4 R410	2001-001114	R-CARBON(S);2700HM,5%,1/2W,AA,TP,2.4X6.4	
....4 R411	2001-001139	R-CARBON(S);39KOHM,5%,1/2W,AA,TP,2.4X6.4	
....4 R412	2001-000020	R-CARBON(S);22OHM,5%,1/2W,AA,TP,2.4X6.4M	
....4 R415	2001-000028	R-CARBON(S);100OHM,5%,1/2W,AA,TP,2.4X6.4	
....4 R421	2001-001088	R-CARBON(S);1KOHM,5%,1/2W,AA,TP,2.4X6.4M	
....4 R424	2008-001018	R-FUSIBLE(S);0.47ohm,10%,2W,AF,TP,3.9x10	
....4 R425	2008-001018	R-FUSIBLE(S);0.47ohm,10%,2W,AF,TP,3.9x10	
....4 R426	2003-002178	R-METAL OXIDE(S);1Kohm,5%,2W,AG,TP,3.9x1	
....4 R429	2004-001403	R-METAL(S);7.5Kohm,1%,1/2W,AA,TP,2.4x6.4	
....4 R430	2004-001390	R-METAL(S);1Kohm,2%,1/2W,AA,TP,2.4x6.4mm	
....4 R432	2004-005045	R-METAL;75KOHM,1%,1/2W,AA,TP,2.4X6.4MM	
....4 R435	2008-001050	R-FUSIBLE;22ohm,5%,2W,AF,TP,3.9x10mm	
....4 R436	2003-002151	R-METAL OXIDE;18KOHM,5%,2W,AG,TP,6X16MM	
....4 R601	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R602	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R620	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R621	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R622	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R623	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R624	2001-000273	R-CARBON;100KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R625	2001-000780	R-CARBON;470OHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R801	2009-000021	R-METAL PLATE;0.33ohm,10%,5W,CL,TP,5x14x	
....4 R802	2003-000586	R-METAL OXIDE(S);22Kohm,5%,2W,AF,TP,4x12	
....4 R803	2003-000586	R-METAL OXIDE(S);22Kohm,5%,2W,AF,TP,4x12	
....4 R804	2003-000586	R-METAL OXIDE(S);22Kohm,5%,2W,AF,TP,4x12	
....4 R805	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R806	2001-001088	R-CARBON(S);1KOHM,5%,1/2W,AA,TP,2.4X6.4M	
....4 R807	2001-001192	R-CARBON(S);820OHM,5%,1/2W,AA,TP,2.4X6.4	
....4 R810	2001-000109	R-CARBON(S);470OHM,5%,1/2W,AA,TP,2.4X6.4	
....4 R811	2001-001155	R-CARBON(S);5.6KOHM,5%,1/2W,AA,TP,2.4X6.	
....4 R813	2001-000019	R-CARBON(S);10OHM,5%,1/2W,AA,TP,2.4X6.4M	
....4 R814	2001-000800	R-CARBON;5.1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R816	2001-001088	R-CARBON(S);1KOHM,5%,1/2W,AA,TP,2.4X6.4M	
....4 R817	2001-001088	R-CARBON(S);1KOHM,5%,1/2W,AA,TP,2.4X6.4M	
....4 R818	2001-001131	R-CARBON(S);33KOHM,5%,1/2W,AA,TP,2.4X6.4	
....4 R819	2004-001983	R-METAL(S);2.49Kohm,1%,1/2W,AA,TP,2.4x6.	
....4 R820	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R821	2004-001891	R-METAL(S);133Kohm,1%,1/2W,AA,TP,2.5x6.5	
....4 R824	2008-001058	R-FUSIBLE;0.18ohm,5%,1W,AF,TP,3.9x10mm	
....4 R825	2001-000019	R-CARBON(S);10OHM,5%,1/2W,AA,TP,2.4X6.4M	
....4 R829	2001-000577	R-CARBON;2KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R834	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R837	2001-000020	R-CARBON(S);22OHM,5%,1/2W,AA,TP,2.4X6.4M	
....4 R842	2001-000109	R-CARBON(S);470OHM,5%,1/2W,AA,TP,2.4X6.4	
....4 R847	2001-000037	R-CARBON(S);330OHM,5%,1/2W,AA,TP,2.4X6.4	
....4 R849	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 R850	2001-000028	R-CARBON(S);100OHM,5%,1/2W,AA,TP,2.4X6.4	
....4 RG01	2001-000313	R-CARBON;11KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RG02	2001-000273	R-CARBON;100KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RG03	2001-001126	R-CARBON(S);300OHM,5%,1/2W,AA,TP,2.4X6.4	
....4 RG04	2001-001040	R-CARBON(S);0.68OHM,5%,1/2W,AA,TP,2.4X6.	
....4 RG05	2004-001379	R-METAL(S);12Kohm,1%,1/2W,AA,TP,2.4x6.4m	
....4 RG06	2001-000273	R-CARBON;100K0HM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RG07	2001-001142	R-CARBON(S);3KOHM,5%,1/2W,AA,TP,2.4X6.4M	
....4 RG08	2003-002282	R-METAL OXIDE(S);39OHM,5%,1W,AF,TP,3.3X9	
....4 RG09	2008-001014	R-FUSIBLE(S);22ohm,5%,1W,AF,TP,3.2x10mm	
....4 RG10	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
....4 RG11	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2MM	
⚠ 4 RP801S	2002-001010	R-COMPOSITION;1.8Mohm,5%,1/2W,AA,TP,3.7x	
⚠ 4 RR02S	2004-002016	R-METAL(S);15Kohm,1%,1/2W,AA,TP,2.5x6.5m	
⚠ 4 RR03S	2001-001103	R-CARBON(S);20KOHM,5%,1/2W,AA,TP,2.4X6.4	
⚠ 4 RR04S	2004-001402	R-METAL(S);6.8Kohm,1%,1/2W,AA,TP,2.4x6.4	
⚠ 4 RR06S	2001-001149	R-CARBON(S);43KOHM,5%,1/2W,AA,TP,2.4X6.4	
⚠ 4 RR07S	2004-001382	R-METAL(S);13Kohm,1%,1/2W,AA,TP,2.4x6.4m	
⚠ 4 RX801S	2002-001011	R-COMPOSITION;3.3Mohm,5%,1/2W,AA,TP,3.7x	
⚠ 4 RY801S	2002-001013	R-COMPOSITION;4.7Mohm,5%,1/2W,AA,TP,3.7x	
⚠ 4 VX801S	1405-000152	VARISTOR;560V,2500A,14x8.5mm,TP	
..2	AA63-00443B	SHIELD;TVCR,SPTE ,T0.3,-,-,-,SUS-DECK	
..2	AA61-01241A	HOLDER-PCB;29J6,HIPS V0,G4309	
..2	AA61-01187A	HOLDER-TRAY;21J5,ABS HB,BLK	
..2	AA61-01184A	HOLDER-DECK;COMBO,HIPS V0,G4309	
..2	AA60-00157A	SPACER-BUMPON;,COMBO,D10.2,BLK,T2.5,W10.	
..2	AA39-20497B	LEAD CONNECTOR-ASSY;,1P,YFH800-01,RING,2	
..2	AA65-30009A	CLAMPER CORE-FBT;-,ABS,V0,-,BLK,-	
..2	AA65-00011C	CLAMPER CORE-WIRE;ALL MODEL,NYLON 66,V2,	
..2	AA64-01763B	INLAY-BARRIER,FRONT;21G5,PVC,T0.4,-,-,-,	
..2	AA63-00595A	SHIELD-DVD;COMBO,SECC,T0.5	
..2	AA63-00594A	SHIELD-VCR;COMBO,SECC,T0.5	

ASSY COVER REAR

1	*	AA90-04428A	ASSY COVER REAR;29J6,CXM2785TPX/XAA
..2	BACK	AA60-00091J	SPACER-FELT;-,FELT,330X10,-,-,BLK,T0.5,-
..2		AA60-00091P	SPACER-FELT;,FELT,500X10,BLK,T0.5
⚠ ..2		AA65-30008A	CLAMPER CORE-CORD;-,PE,HB,-,BLK,-
..2		AA64-03126A	CABINET-BACK;29J6,HIPS,V0
..2		AA64-02820A	INLAY-BACK;21J5,PS SHEET,T0.5

ASSY COVER FRONT

1	*	AA90-04427A	ASSY COVER FRONT;29J6,CXM2785TPX/XAA
..2	AV+CF	6003-001268	SCREW-TAPTITE;TH,+,B,M4.0,L12.0,ZPC(YEL)
..2	BRKT+C	6002-000522	SCREW-TAPPING;TH,+,2,M4,L15,ZPC(BLK),SWR
..2	CB+CF	AA60-10050T	SCREW-TAPPING;-,SWRCH18A,M4,L20,RH,+,2S,
..2	CB+RCA	AA60-10050T	SCREW-TAPPING;-,SWRCH18A,M4,L20,RH,+,2S,

Loc. No.		Code No.	Description ; Specification	Remark
..2	CRT+CF	AA60-10050V	SCREW-ASSY;-,SWRCH18A,M6,L30,HH,+,WC,-,Z	
..2	SPK+CF	6006-001095	SCREW-ASS'Y TAPT;WP,BH,+,M4,L12,ZPC(YEL)	
..2		AA96-01242A	ASSY COVER P-C/FRONT;29J6,HIPS V0,G4309,	
...3	DECO+C	6003-001026	SCREW-TAPTITE;RH,+,B,M4,L15,ZPC(BLK),SWR	
...3	KD+CF	6003-001026	SCREW-TAPTITE;RH,+,B,M4,L15,ZPC(BLK),SWR	
...3	KF+CF	6003-001026	SCREW-TAPTITE;RH,+,B,M4,L15,ZPC(BLK),SWR	
...3	TOP	AA60-00091J	SPACER-FELT;-,FELT,330X10,-,-,BLK,T0.5,-	
...3	WIN+CF	6003-001026	SCREW-TAPTITE;RH,+,B,M4,L15,ZPC(BLK),SWR	
...3		AA64-03129A	KNOB-FAMILY;29J6,ABS,HB,G3676,DG703P+W97	
...3		AA64-03130A	KNOB-DVD;29J6,ABS,HB,G3676,DG703P+W971	
...3		AA64-03132A	WINDOW-RMC,LED;29J6,PC,CLR	
...3		AA64-03148A	INLAY-AV;29J6,PS SHEET,T0.3	
...3		AA64-70117B	BADGE-BRAND;-,AL,-,-,L65,R2000,SILVER,SS	
...3		AA65-00011C	CLAMPER CORE-WIRE;ALL MODEL,NYLON 66,V2,	
...3		AA61-01223A	SPRING ETC-DOOR,DVD;21J5,SUS304,T0.3	
...3		AA61-01224A	SPRING ETC-DOOR,VCR;21J5,SUS304,T0.4	
...3		AA64-02960B	DOOR-HOUSUNG;29J6,ABS HB,G4309,SV704P	
...3		AA64-03125A	CABINET-FRONT;29J6,HIPS,V0,G4309,DG703P	
...3		AA64-03127A	DECORATION;29J6,ABS,HB,G4309,SV704P	
...3		AA64-03128A	DOOR-DVD;29J6,ABS HB,G4309,SV704P	
..2		AA96-01239A	ASSY SPEAKER P;8OHM,AA39-00102R,5W,900/5	
..2		AA73-00005B	RUBBER-CAP;FLAT,PRJ,SILICONE RUBBER,WHIT	
..2		AA65-30017A	CLAMPER CORE-D,COIL;-,NYLON-66,V0,-,NTR,	
..2		AA65-00019A	CLAMPER CORE-D,COIL;25-34,NYLON 66,V2,N	
..2		AA63-60004Z	SPACER-GUM,CRT;ALL MODEL,NTR RUBBER,-,-,	
..2		AA61-10054A	BRACKET-CRATER;6277,STS304,T0.5,-,-,-,-	

ASSY P/MATERIAL

1	*	AA92-07422A	ASSY P/MATERIAL;29J6,CXM2785TPX/XAA	
..2		AA63-10007C	BAND-PP;W18,CLEA,1G	
..2		AA60-40006A	PIN-STAPLE;AUTO,33X17.8X2.4,H18,33X17.8X	

ASSY CPT

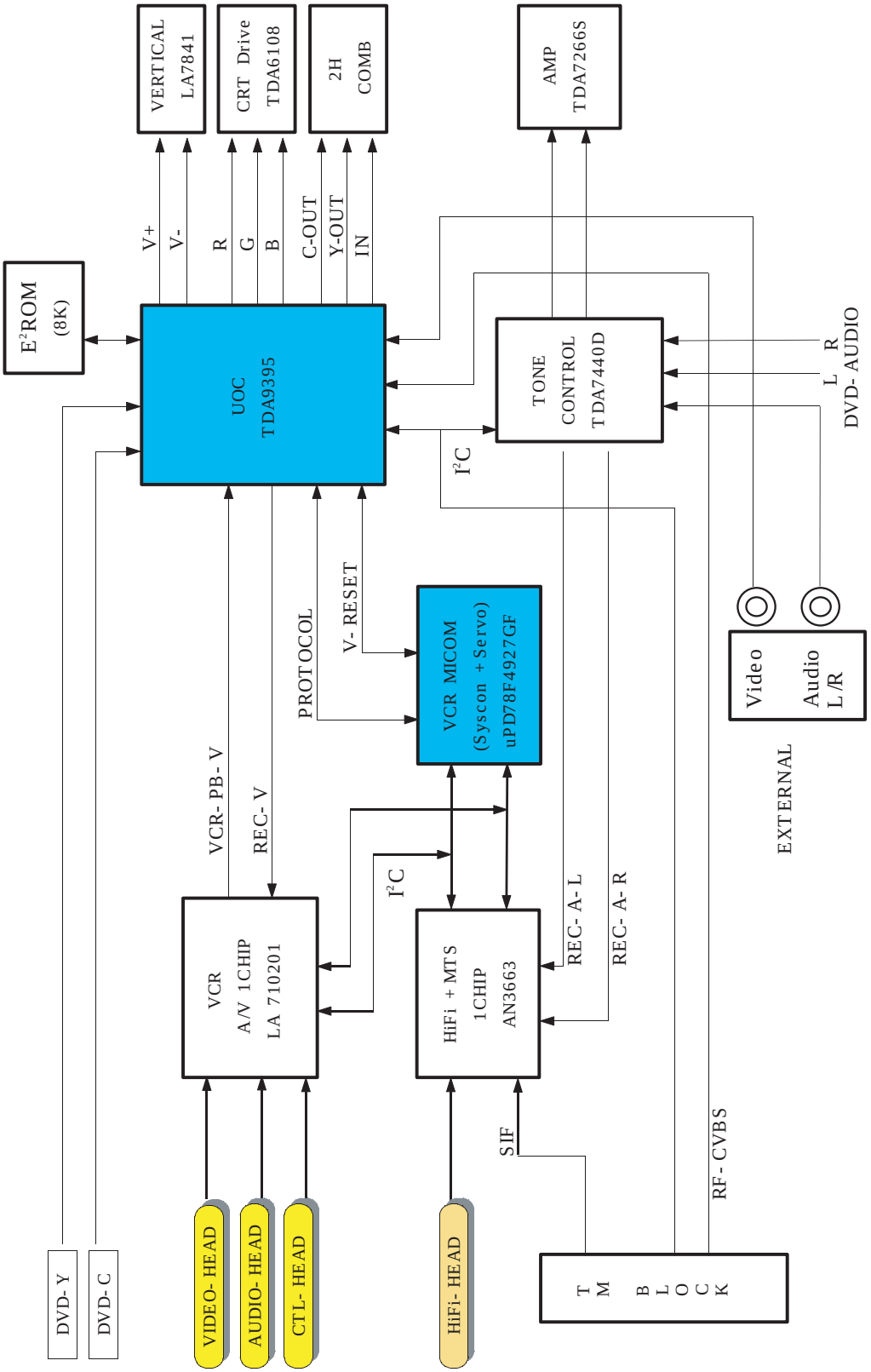
1	*	AA91-05992A	ASSY CPT;CXM2785TPX/XAA	
..2		AA27-00215A	COIL DEGAUSSING;,29INCH,10%,50T,4.5OHM,2	
..2		AA91-02173K	ASSY CPT;A68QCP891X100,29,+380MGAA03-00	
⚠ ...3		AA03-00273A	CRT COLOR;A68QCP891X100,+380MG,1.1MH,14.	
..2		AA98-70011A	ASSY TBC WIRE(P);-,29INCH,NTSC,PAL,2P-WH	

ASSY ACCESSORY

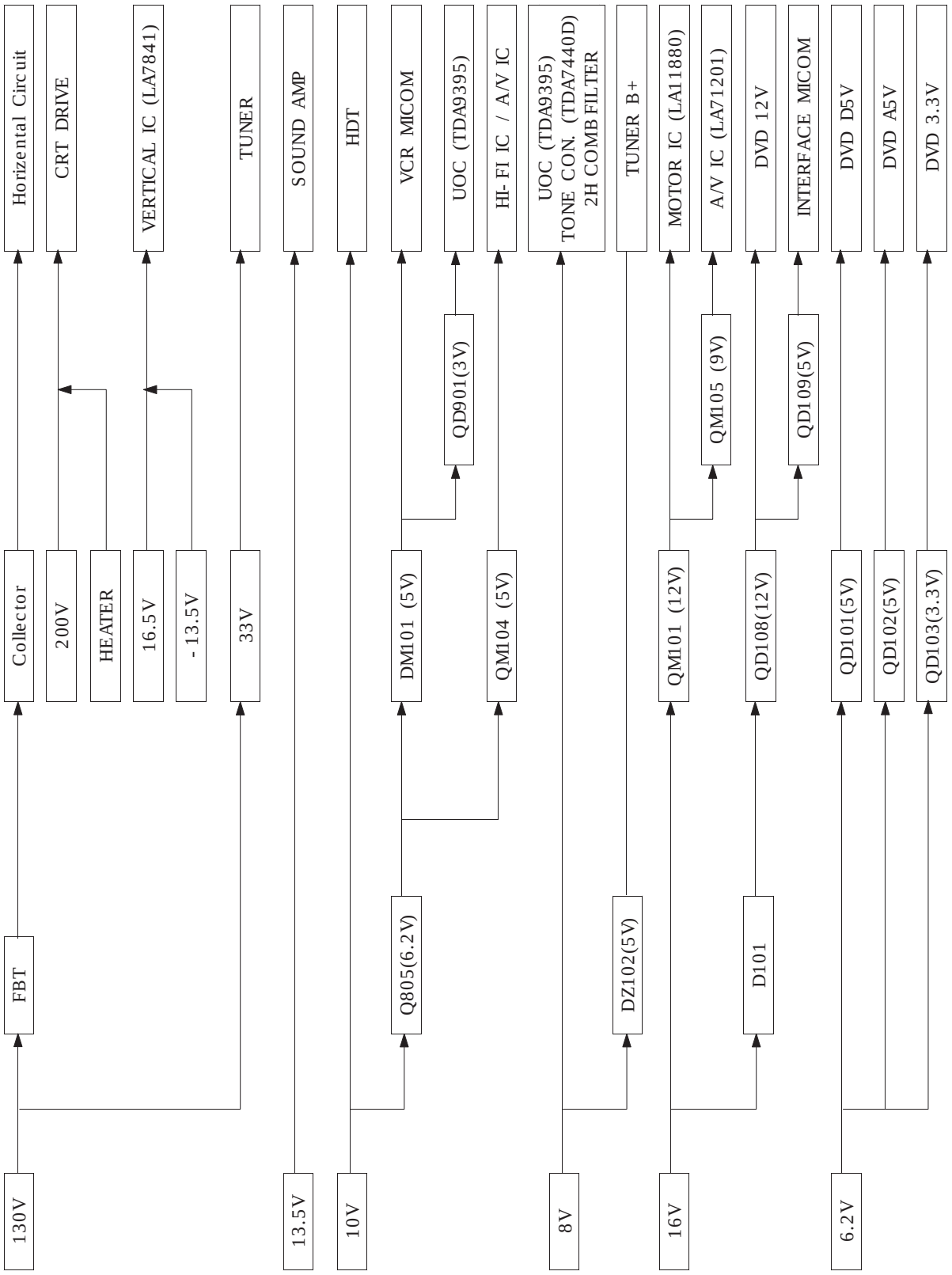
1	*	AA92-07426A	ASSY ACCESSORY;CXM2785TPX/XAA,V18B	
..2		AA68-40065B	CARD-REGISTRATION;,SEA,A5,ENG,A/P220,2P(	
..2		AA68-02634A	MANUAL USERS;CXM2785TPX,SAMEX,ENG,W/P100	
..2		AA68-01990A	CARD WARRANTY;TVDP,W/P100(G),SEA,B5,90 D	
..2		AA59-00265B	REMOCON;,TM65,3WAY COMBO,53,G6671B,S/S,S	

8. Block Diagrams

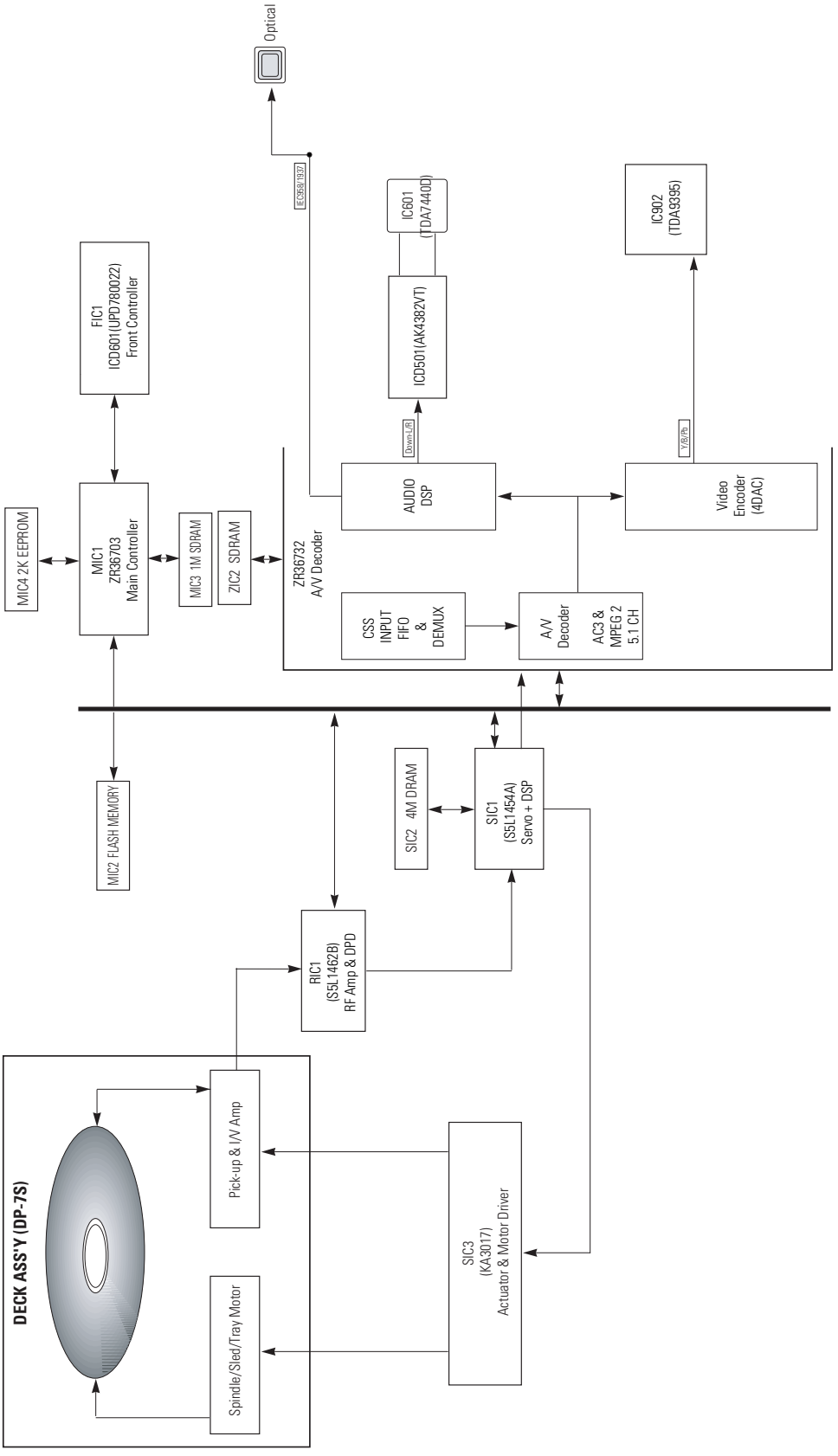
8-1 Signal Block Diagram



8-2 POWER Block Diagram



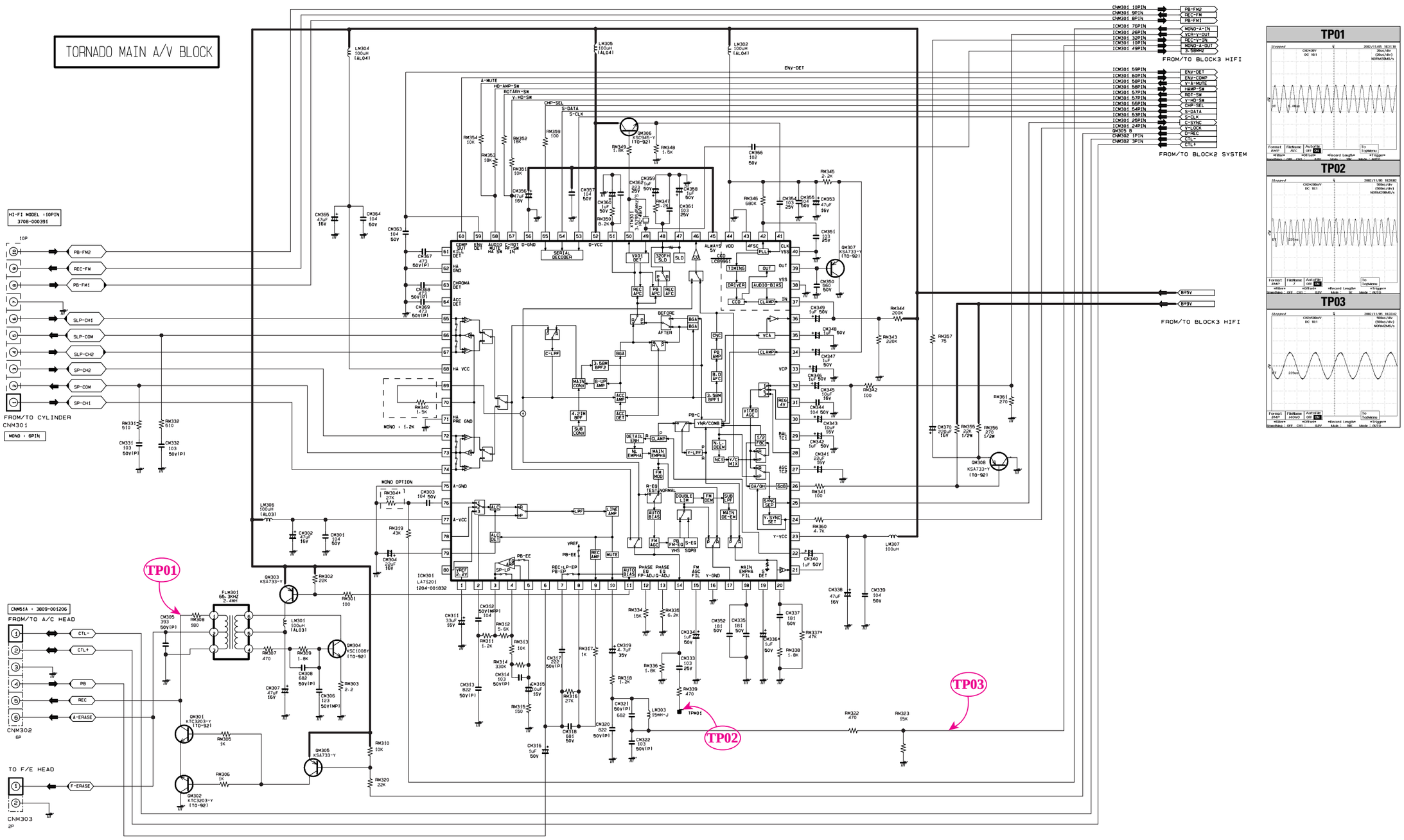
8-3 DVD Block


Optical
IC601
(TDA7440D)
IC902
(TDA9395)
FIC1
ICD601(UPD780022)
Front Controller
ICD501(AK4382VT)
MIC4 2K EEPROM
MIC1
ZR36703
Main Controller
MIC3 1M SDRAM
ZIC2 SDRAM
ZR36732
A/V Decoder
AUDIO
DSP
Video
Encoder
(4DAC)
CSS
INPUT
FIFO
&
DEMUX
A/V
Decoder
AC3 &
MPEG 2
5.1 CH
MIC2 FLASH MEMORY
SIC2 4M DRAM
SIC1
(S5L1454A)
Servo + DSP
RIC1
(S5L1462B)
RF Amp & DPD
DECK ASS'Y (DP-7S)
Pick-up & I/V Amp
Spindle/Sled/Tray Motor
SIC3
(KA3017)
Actuator & Motor Driver

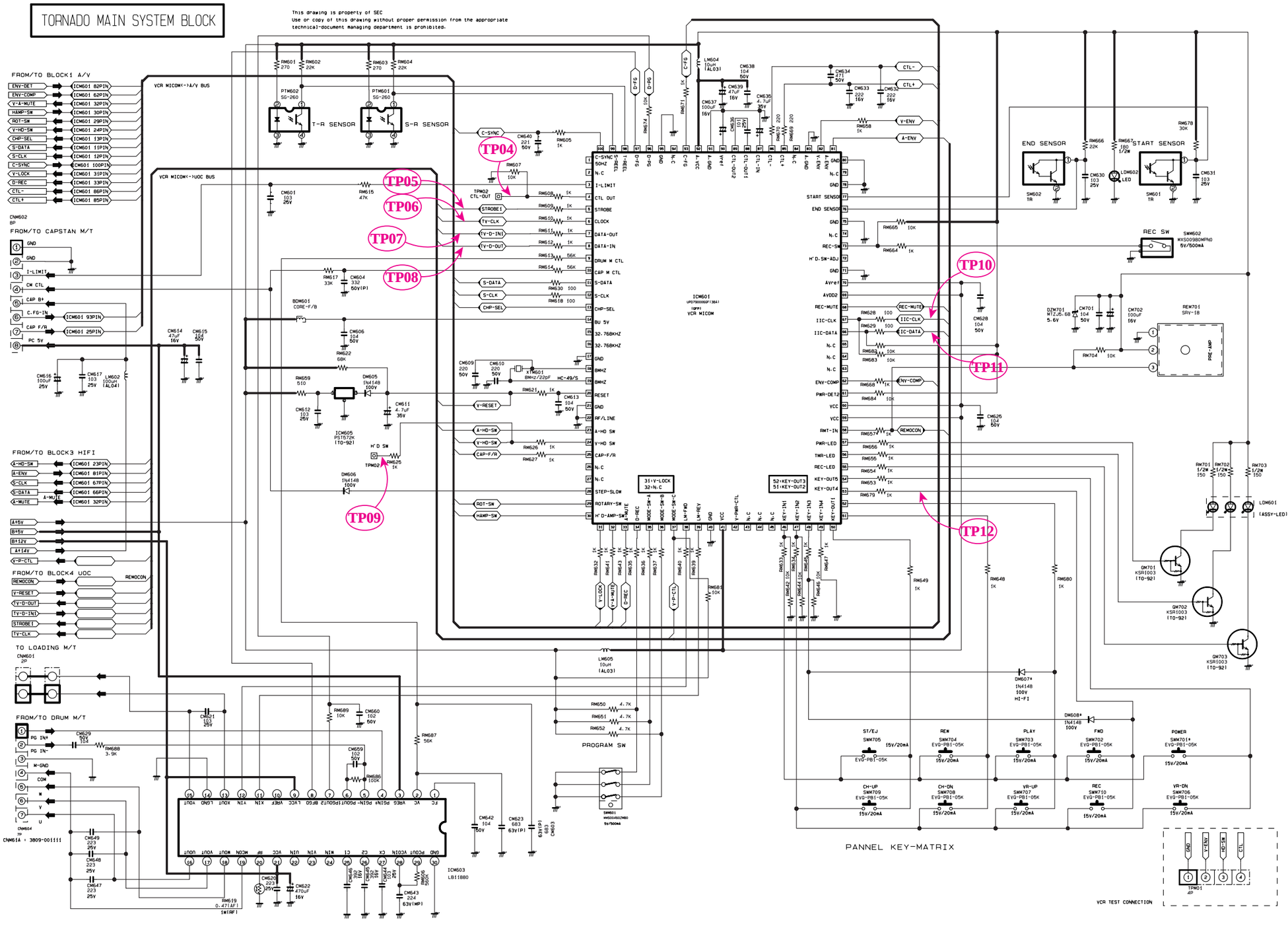
MEMO

9. Schematic Diagrams

9-1 MAIN 1



9-2 MAIN 2


TORNADO MAIN SYSTEM BLOCK
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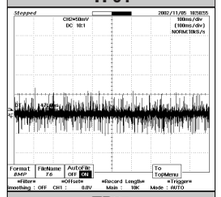
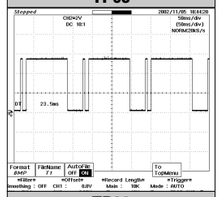
technical-document managing department is prohibited.
FROM/TO BLOCK1 A/V
VCR MICOM(<->)A/V BUS
VCR MICOM(<->)UOC BUS
FROM/TO CAPSTAN M/T
FROM/TO BLOCK3 HIFI
FROM/TO BLOCK4 UOC
TO LOADING M/T
FROM/TO DRUM M/T
T-R SENSOR
S-R SENSOR
END SENSOR
START SENSOR
REC SW
PROGRAM SW
PANNEL KEY-MATRIX
VCR TEST CONNECTION
TP04
TP05
TP06
TP07
TP08
TP09
TP10
TP11
TP12
ICM601
VCR MICOM
ICM603
LB11880
ICM605
PST572K
(TO-92)
LDM601
(ASSY-LED)
LDM602
LED
PRE-AMP
REMOCON

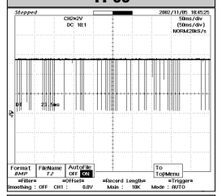
TP04



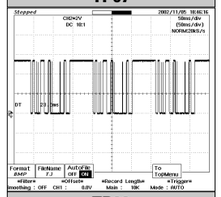
TP05



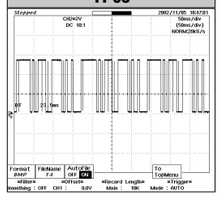
TP06



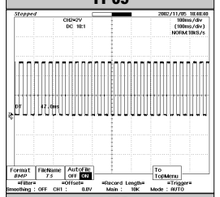
TP07



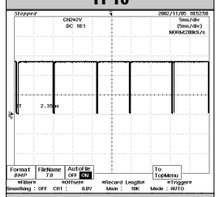
TP08



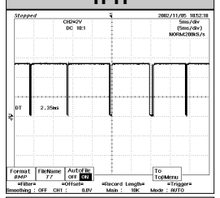
TP09



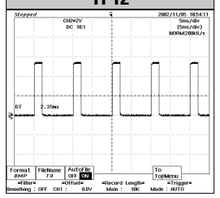
TP10



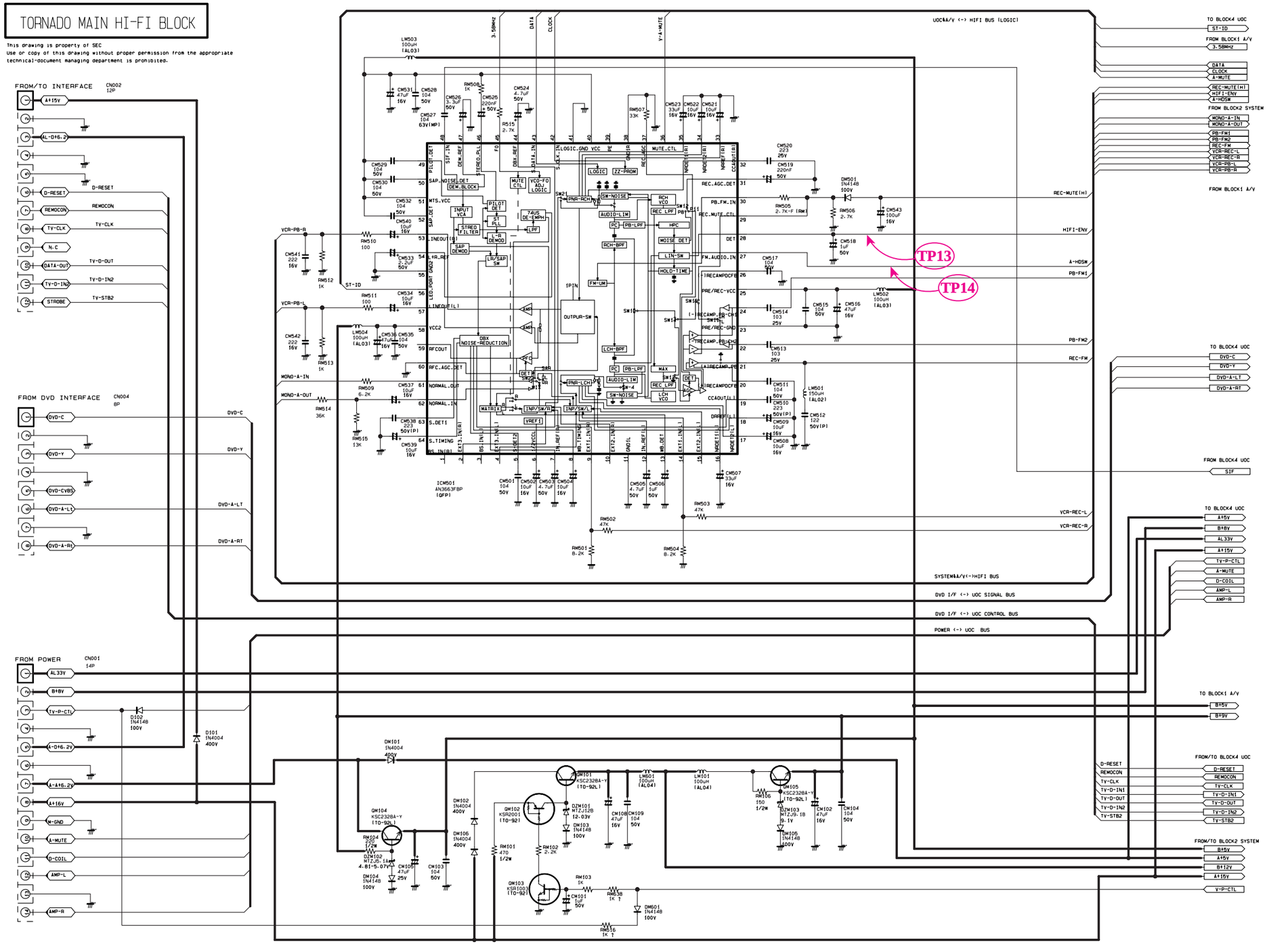
TP11



TP12



9-3 MAIN 3


TORNADO MAIN HI-FI BLOCK
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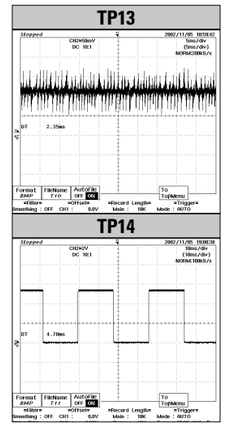
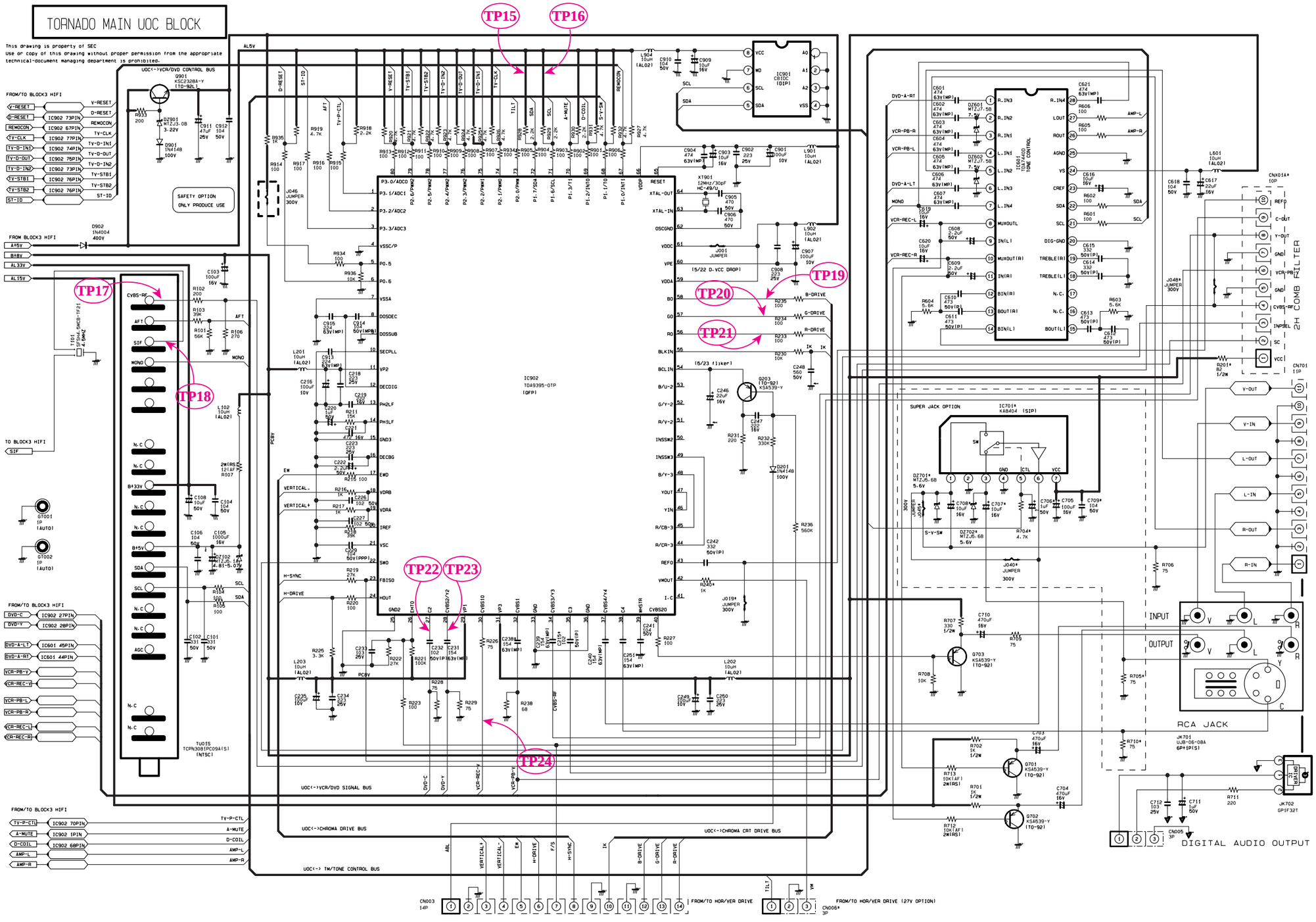
FROM/TO INTERFACE CN002 12P
A+15V
AL-D+6.2
D-RESET
REMOCON
TV-CLK
N.C
DATA-OUT
TV-D-OUT
TV-D-IN2
STROBE
TV-STB2
FROM DVD INTERFACE CN004 8P
DVD-C
DVD-Y
DVD-CVBS
DVD-A-LT
DVD-A-RT
FROM POWER CN001 14P
AL33V
B+8V
TV-P-CTL
A-D+6.2V
A-A+6.2V
A+16V
M-GND
A-MUTE
D-COIL
AMP-L
AMP-R
ICM501 AN3663FBP (QFP)
UOC&A/V (<-) HIFI BUS (LOGIC)
SYSTEM&A/V(<->)HIFI BUS
DVD I/F (<-) UOC SIGNAL BUS
DVD I/F (<-) UOC CONTROL BUS
POWER (<-) UOC BUS
TO BLOCK4 UOC
ST-ID
FROM BLOCK1 A/V
3.58MHz
DATA
CLOCK
A-MUTE
REC-MUTE(H)
HIFI-ENV
A-HDSW
FROM BLOCK2 SYSTEM
MONO-A-IN
MONO-A-OUT
PB-FM1
PB-FM2
REC-FM
VCR-REC-L
VCR-REC-R
VCR-PB-L
VCR-PB-R
TO BLOCK4 UOC
DVD-C
DVD-Y
DVD-A-LT
DVD-A-RT
FROM BLOCK4 UOC
SIF
TO BLOCK4 UOC
A+15V
B+8V
AL33V
A+15V
TV-P-CTL
A-MUTE
D-COIL
AMP-L
AMP-R
TO BLOCK1 A/V
B+15V
B+9V
FROM/TO BLOCK4 UOC
D-RESET
REMOCON
TV-CLK
TV-D-IN1
TV-D-OUT
TV-D-IN2
TV-STB2
FROM/TO BLOCK2 SYSTEM
B+15V
A+5V
B+12V
A+16V
V-P-CTL
TP13
TP14


TP13
TP14

9-4 MAIN 4


TORNADO MAIN UOC BLOCK
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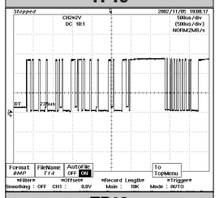
TP15
TP16
TP17
TP18
TP19
TP20
TP21
TP22
TP23
TP24
UOC(<->VCR/DVD CONTROL BUS
FROM/TO BLOCK3 HIFI
SAFETY OPTION ONLY PRODUCE USE
IC902 TDA9395-OTP (QFP)
UOC(<->VCR/DVD SIGNAL BUS
UOC(<->CHROMA DRIVE BUS
UOC(<->CHROMA CAT DRIVE BUS
UOC(<-> TM/TONE CONTROL BUS
IC601 TDA9160 TONE CONTROL
SUPER JACK OPTION
IC701* KA8404 (SIP)
INPUT
OUTPUT
RCA JACK
2H COMB FILTER
DIGITAL AUDIO OUTPUT
FROM/TO HOR/VER DRIVE
FROM/TO HOR/VER DRIVE (27V OPTION)

TP15



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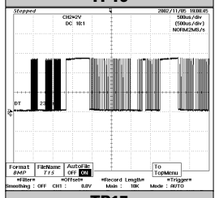
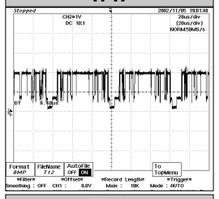


TP17



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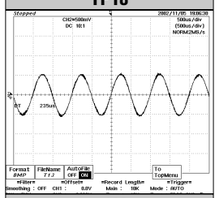
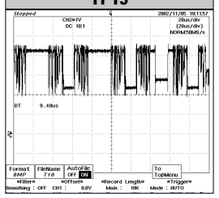
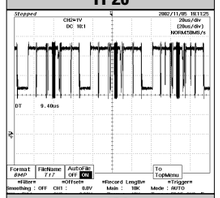


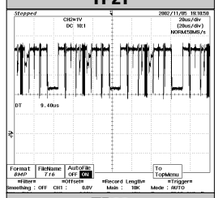
TP19



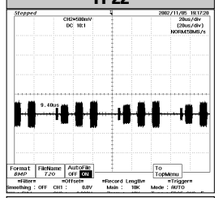
TP20



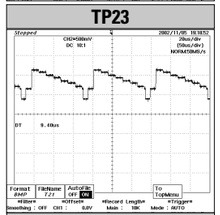
TP21



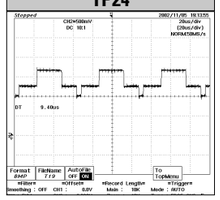
TP22



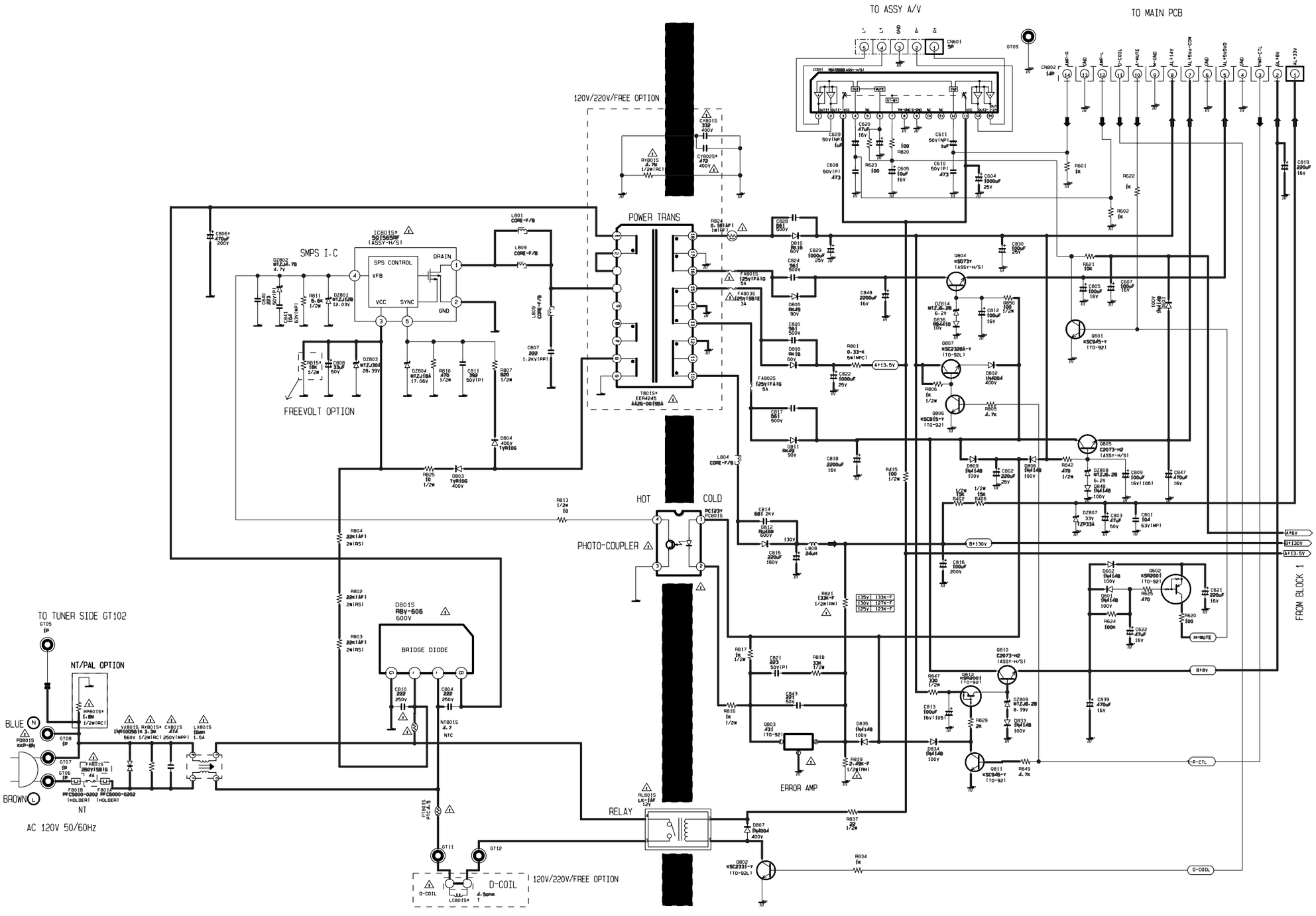
TP23



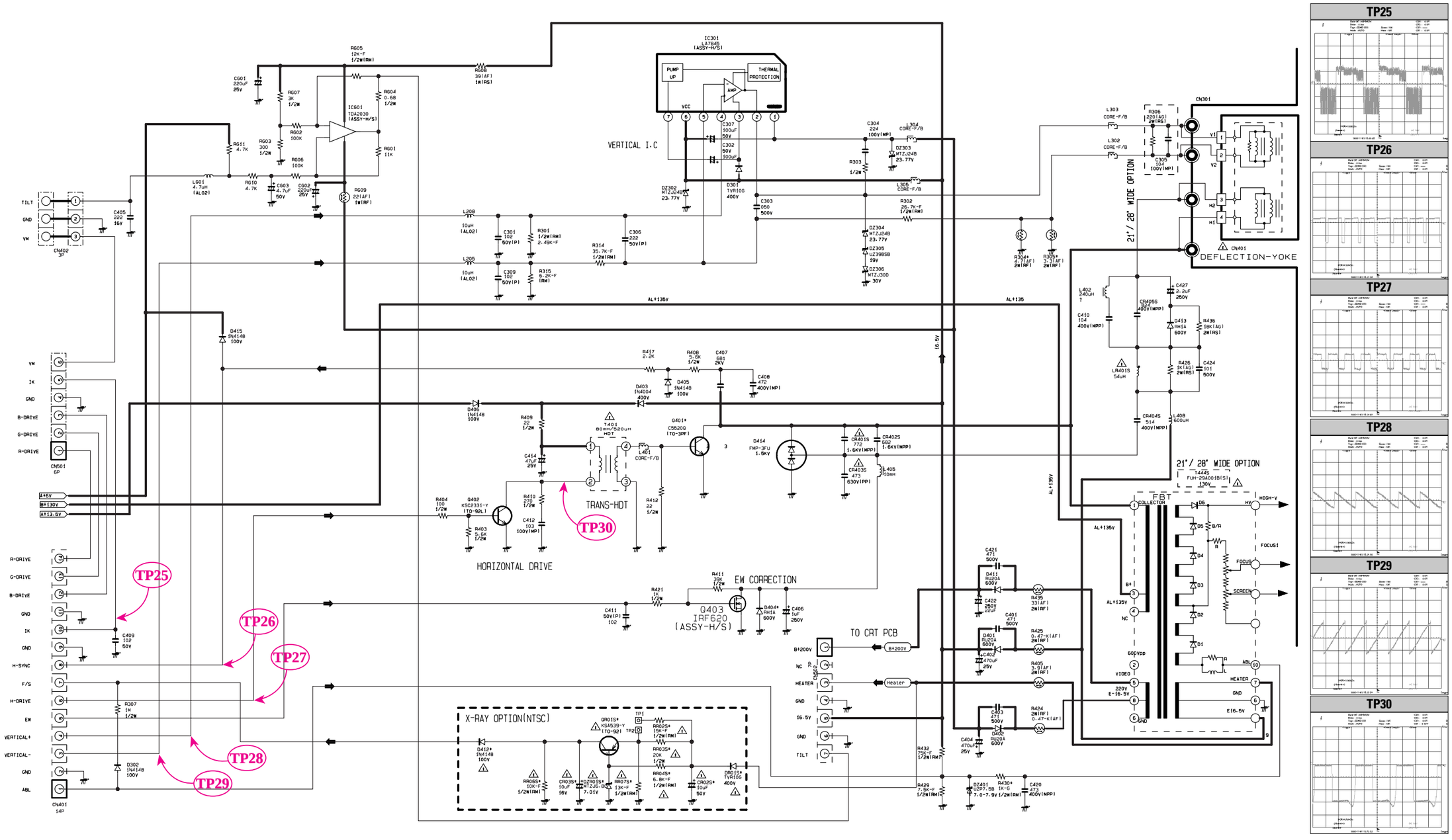
TP24



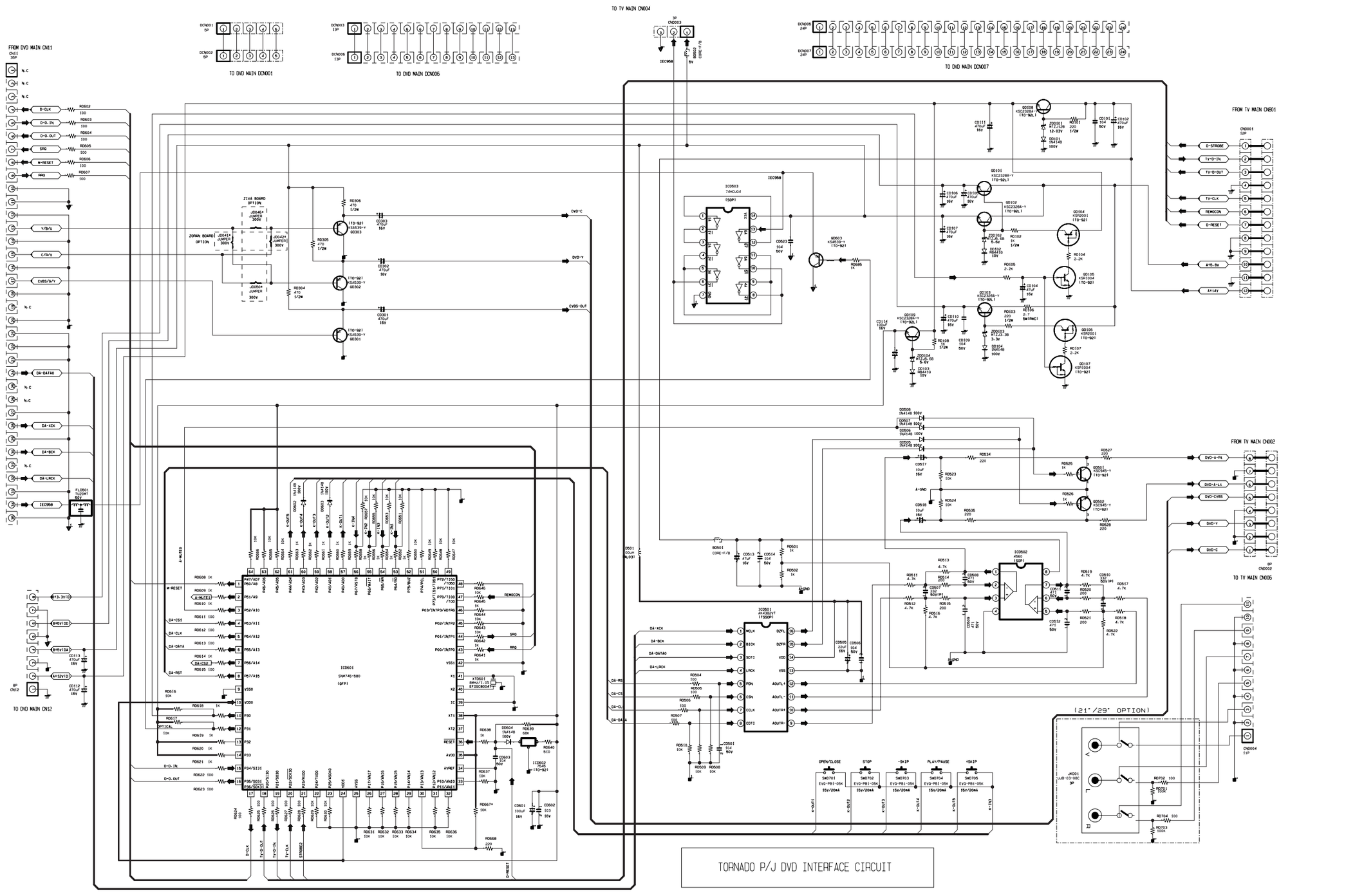
9-5 POWER BLOCK



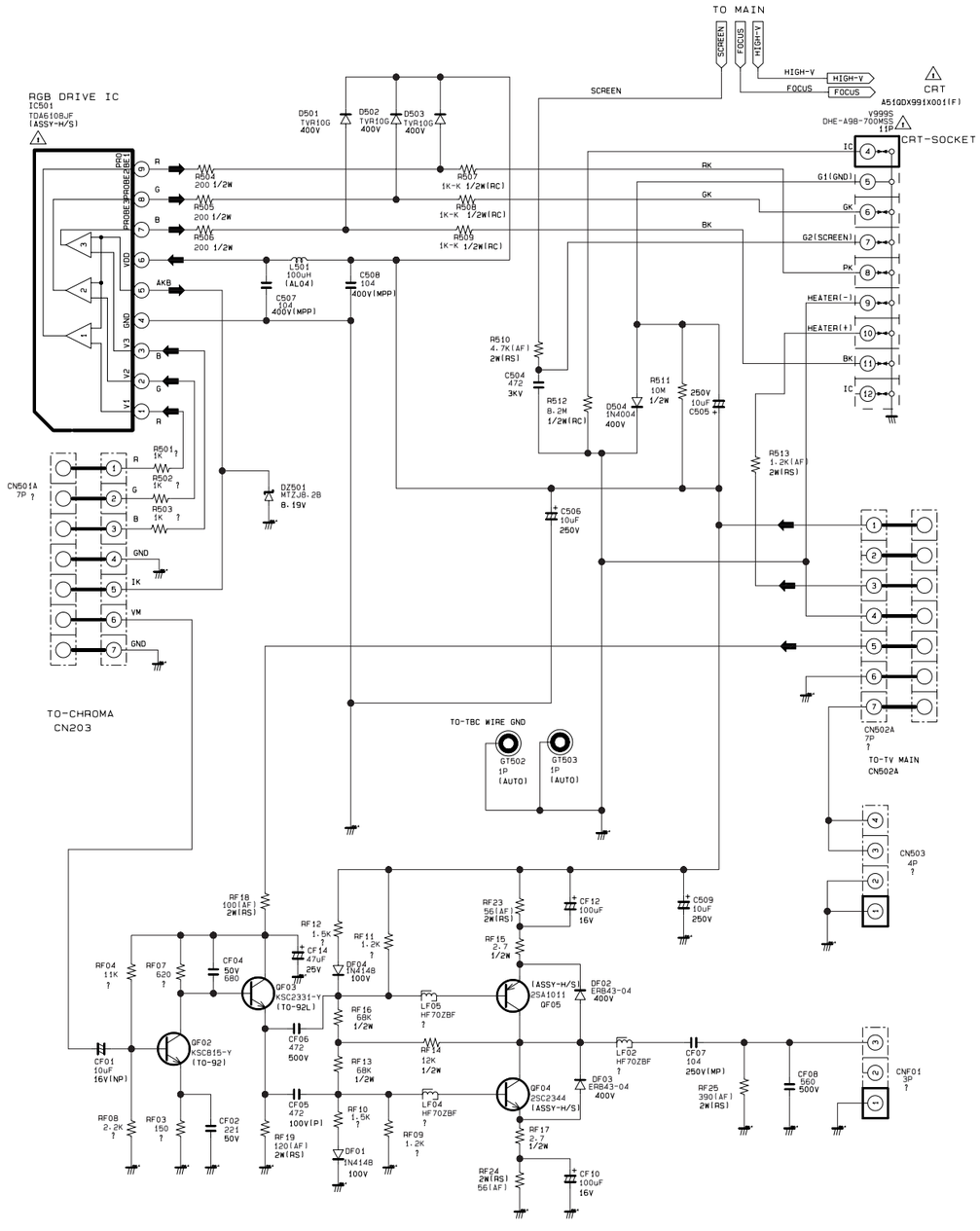
9-6 DEFLECTION BLOCK



9-7 INTERFACE BLOCK

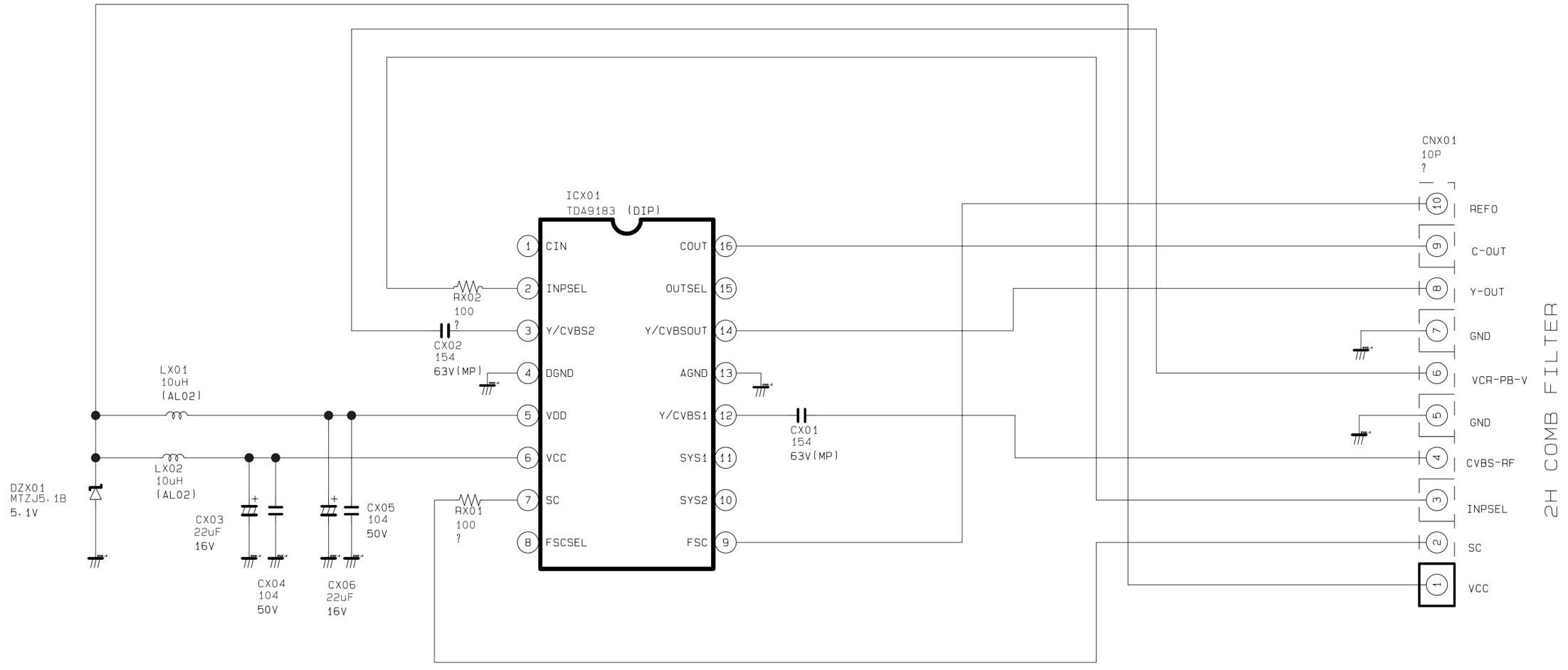


9-8 CRT BLOCK

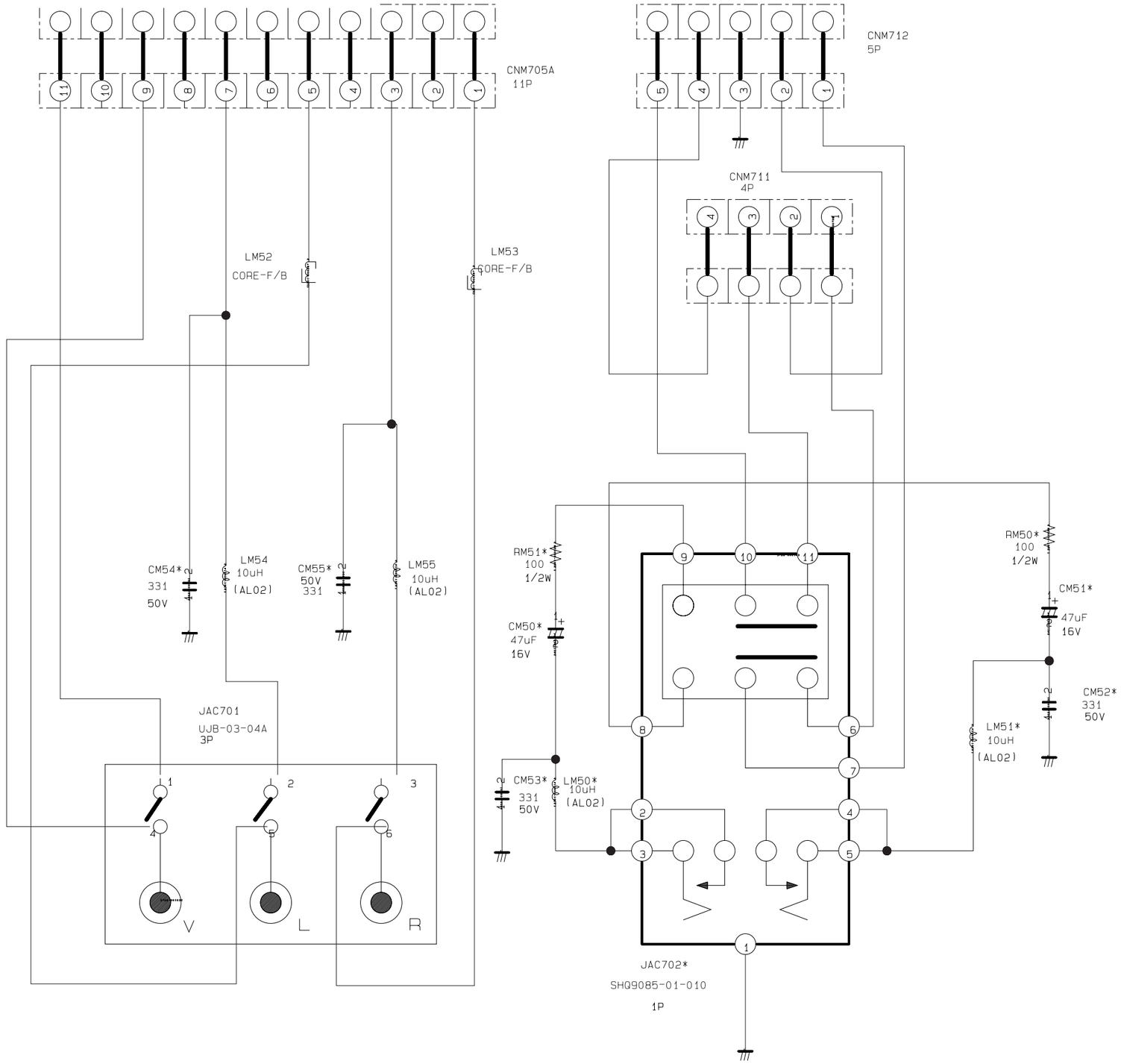

TO MAIN
SCREEN
FOCUS
HIGH-V
HIGH-V
FOCUS
CRT
A51GDX991X001(F)
V9995
DHE-A9B-700MSS
11P
CRT-SOCKET
RGB DRIVE IC
IC501
TDA6108JF
(ASSY-H/S)
D501 TVR10G 400V
D502 TVR10G 400V
D503 TVR10G 400V
R504 200 1/2W
R505 200 1/2W
R506 200 1/2W
R507 1K-K 1/2W(RC)
R508 1K-K 1/2W(RC)
R509 1K-K 1/2W(RC)
L501 100uH (AL04)
C507 104 400V(MPP)
C508 104 400V(MPP)
R510 4.7K(AF) 2W(RS)
C504 472 3KV
R512 8.2M 1/2W(RC)
D504 1N4004 400V
R511 10M 1/2W
250V 10uF C505
R513 1.2K(AF) 2W(RS)
C506 10uF 250V
DZ501 MTZJ8.2B 8.19V
CN501A 7P
R501 1K
R502 1K
R503 1K
GND
IK
VM
GND
TO-CHROMA CN203
TO-TBC WIRE GND
GT502 1P (AUTO)
GT503 1P (AUTO)
CN502A 7P
TO-TV MAIN CN502A
CN503 4P
RF18 100(AF) 2W(RS)
RF12 1.5K
CF14 47uF 25V
RF11 1.2K
RF04 11K
RF07 620
CF04 50V 680
DF04 1N4148 100V
QF03 KSC2331-Y (TO-92L)
RF16 68K 1/2W
CF06 472 500V
LF05 HF70ZBF
RF14 12K 1/2W
RF13 68K 1/2W
CF05 472 100V(P)
RF10 1.5K
LF04 HF70ZBF
RF09 1.2K
DF01 1N4148 100V
RF19 120(AF) 2W(RS)
CF01 10uF 16V(NP)
QF02 KSC815-Y (TO-92)
RF08 2.2K
RF03 150
CF02 221 50V
RF23 56(AF) 2W(RS)
CF12 100uF 16V
C509 10uF 250V
RF15 2.7 1/2W
(ASSY-H/S) 2SA1011 QF05
DF02 ERB43-04 400V
LF02 HF70ZBF
CF07 104 250V(MP)
RF25 390(AF) 2W(RS)
CF08 560 500V
CNF01 3P
QF04 2SC2344 (ASSY-H/S)
DF03 ERB43-04 400V
RF17 2.7 1/2W
RF24 2W(RS) 56(AF)
CF10 100uF 16V

9-9 COMB

27V 3WAY COMBO 2H COMB FILTER



9-10 AV-Decoder



9-11 IC PIN VOLTAGE

IC301 Vertical IC

Pin No	Pin Name	Voltage	Remark
1	-	-14V	Picture On
3	-	19V	
6	VCC	18.5V	
7	-	-12V	

IC801S STR

Pin No	Pin Name	Voltage	Remark
3	VCC	24V	

IC601 Sound Amp

Pin No	Pin Name	Voltage	Remark
3	VCC	16V	Picture On
13			
6	A+6V	5.6V	
7	A+6V	5.6V	

ICM601 VCR Micom

Pin No	Pin Name	Voltage	Remark
4	CTL-OUT	-	Play:3.1V No Play:5.2V
6	TV CLK	5.2V	Stby, On, Play
12	S-CLK	5.2V	
14	A+5V	5.2V	
20	Reset	5.2V	
33	D-Rec	5.2V	Stby, On
35	Mode-SW-A	5.2V	On, Play
37	V-P-CTL	5.2V	
38	-	5.2V	
39	-	-	Stby :4.7V On/PlaY;5.2V
41	VCC	5.2V	
44	-	5.2V	Stby, On, Play
59	VCC	5.2V	
60	VCC	5.2V	
61	PWR-DET	5.2V	
66	ICC-Data	5V	
67	ICC-CLK	5V	
69	VCC	5.2V	
70	VCC	5.2V	
73	Rec-SW	5.2V	
76	End-Sensor	5.2V	
77	Start-Sensor	5.2V	
92	A-VCC	5.2V	
99	-	5.2V	On

ICM301 A/V IC

Pin No	Pin Name	Voltage	Remark
11	-	5V	
23	B+5V	5V	
44	B+5V	5V	
45	B+5V	5V	
47	-	3.5V	
48	-	3.5V	
49	-	4V	
52	B+5V	5V	
53	S-CLK	5V	
68	B+5V	5V	
77	B+5V	5V	

ICM501 HI-FI IC

Pin No	Pin Name	Voltage	Remark
25	Pre/Rec VCC	5V	On
40	VCC	4.8V	
42	Clock	5V	Stby, On, Play
43	Data	5V	
46	Stereo-Pll	3.2V	On
50	Sap	3.2V	
51	MTS VCC	4.8V	
53	VCR-PB-R	4.2V	
57	VCR-PB-L	4.2V	
58	VCC	8.9V	

IC902 TV MICOM

Pin No	Pin Name	Voltage	Remark
1	TV-P-CTL	4.3V	Picture On
6	D-Reset	5.4V	
11	B+8V	8.1V	
12	-	5V	
14	-	3.7V	
16	-	4V	
17	EW	3.7V	
20	-	3.8V	
21	-	3.8V	
28	DVD-Y	3.3V	
29	PC8V	8.2V	
31	PC8V	8.2V	
32	VCR-PB-V	3.3V	
34	CVBS-RF	4V	
40	-	3.3V	
74	TV-CLK	5.4V	Stby, On
80	V-Reset	5.4V	

IC601 TONE Control

Pin No	Pin Name	Voltage	Remark
24	VCC	8.2V	On

IC901 EEPROM

Pin No	Pin Name	Voltage	Remark
8	VCC	5.3V	Stby, On

ICM603 Motor Drive IC

Pin No	Pin Name	Voltage	Remark
9	VCC	12V	On